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PERCEPTIONS OF THE VIRGINIA ELEMENTARY PRINCIPAL'S ROLE IN SUPPORTING NEW TEACHER INDUCTION

A Dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Education at Virginia Commonwealth University.

By

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DEDICATION

This dissertation is dedicated to the memory of my father, William Richard Hall, and my grandparents, Peter “Bud” and Hazel S. Robinson, and to the honor of my mother, Frances R. Hall. These four individuals gave me the roots and the wings to become the man I am today. Although none of them finished high school, they always encouraged me to pursue all of my dreams. My love of learning and my desire for advanced education would not have been possible without their love and support.

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Abstract

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This study investigates the perceptions surrounding the role Virginia elementary school principals play in supporting the induction of new teachers. Attention is given to the type of the principal's support, the frequency of support, and the perceived importance assigned that support. Because the Virginia Department of Education has encouraged the use of one of three specific models of induction (the ETS Pathwise model, Fairfax Virginia's Great Beginnings model, or the New Teacher Center "Santa Cruz" model) or a locally, research-based model, additional attention is placed on the

impact training and experience in one of these models has and the degree to which varying levels of that training influences those perceptions.

In this non-experimental, comparative study, a census of new teachers and principals throughout the Commonwealth of Virginia was conducted, using an adaptation of an instrument developed by Gurule-Gonzales (1995). Follow-up telephone interviews were conducted to confirm findings from the survey. Results indicate there are statistically significant differences in some principal and new teacher perceptions of the Virginia elementary principals' role in supporting programs of induction. These are found more often in the perceptions regarding frequency than regarding importance. Statistically significant differences were found among principals' perceptions of certain categories of support when considering the amount of training and the type of induction program utilized. While statistically significant differences in teachers' perceptions could not be determined because of the small *n*, there appear to be practical differences based upon the type of induction program and the amount of new teacher program training.

There are a number of implications resulting from this study. New teachers need to be integrated into the life of the school, and programs of induction should be certain to include the careful pairing of mentors with new teachers. Frequent observation and feedback by the principal are necessary to support new teachers. Principals must maintain a frequent presence throughout the work with the new teachers and must be more transparent regarding support efforts. The type of program and the amount of training provided principals and new teachers alike are also critical aspects of induction.

CHAPTER 1

INTRODUCTION

New teachers are leaving the profession at alarming rates – as many as 50% of newly hired teachers will leave in their first five years (National Commission on Teaching and America's Future, 2003). Wong and Wong (1999) expressed this concern almost a decade ago suggesting as much as an 80% overall turnover in the teaching workforce in ten years. They further suggested that the first three years of a new teacher's career are critical and that some system of teacher induction is needed for every new recruit. Much attention has been afforded to models of teacher induction as one way to address this problem of new teacher attrition and to ease the transition of newly hired teachers into their chosen profession (Brock & Grady, 1998; Hare & Heap, 2001; Horn, Sterling, & Subhan, 2002; Ingersoll & Kralik, 2004; National Commission on Teaching and America's Future, 2003; and Odell & Ferrano, 1992).

As early as 1963, researchers advocated for the interaction between novice and experienced teachers for the passing of professional wisdom from one generation to the next. Researchers then argued that it is not merely a matter of the new teacher's knowledge but their ability to teach that content (Conant, 1963). More current research reiterates that thinking, suggesting that teachers must be equipped to meet the many

challenges that lie ahead, whether academic, pedagogical, or behavioral (Allen, 2003; and Bartfai, et. al., 1999).

The central question stills remains – how to best induct new teachers into an ever-changing profession. Central to many modern preparation and induction programs is the idea that the teacher must become an expert in behavior management and instructional delivery as well as content knowledge (Bartfai, et. al., 1999). Often, those skills and knowledge come as a result of working directly with a veteran professional (Alston, 1997). Breaux (2003) advocates for such collegial support, calling for a more structured method of providing for the induction of all new teachers into the profession.

Today's teaching workforce has changed significantly. In the past several decades, there has been a rise in the numbers of all minorities entering the professions of law, medicine, and engineering (Caplow & Wattenberg, 2000 and Coleman, 1993). Education had no need to seek out teachers in the decades of the seventies or eighties because of the large numbers of baby boomers (Johnson & Kardos, 2005). Because women and minorities have far more career options available to them now, there is a dwindling number of individuals in both groups entering the teaching profession (Ogden, 2002). Researchers now suggest a significant increase in the relative percentage of teachers with fewer than ten years of experience (approximately 38 percent) – roughly equal to the number of teachers with more than twenty years of experience. Those with ten to twenty years of experience now represent a minority – approximately 24% of the teaching population (Johnson & Kardos, 2005).

Increased demands for highly qualified teachers and high-stakes testing (*No Child Left Behind,* 2001) create additional challenges to the retention of new teachers. David Hursh (2001) suggests that neoliberalism has taken control of the educational setting, causing a new wave of control over teachers and teaching. Characterizing neoliberal economics as focusing more on economic growth instead of on the social welfare and personal rights of Keynesian economics, he fears that teachers are now seen as commodities to manipulate in order to maximize outputs. Such thinking could have a detrimental impact on the number of individuals interested in becoming teachers by causing them to challenge the viability of entering such a profession (*Teacher Demand Up, Slightly*, 2006).

As this occurs, it becomes increasingly important to enhance the mentoring of new teachers, thereby ensuring the passing of vital knowledge and skills from one generation to the next (Heller, 2004). Carefully planned induction is a recognized strategy to ensure this happens. Today, the concept of induction includes a systematic, purposeful plan for developing novice teachers into the professional experts needed (*Current Developments*, 1986). Carefully calculated steps are necessary to ensure new teachers' success in their newly chosen profession.

Statement of the Problem

The National Commission on Teaching and America's Future (NCTAF) (2003) suggests that more than 50% of teachers entering the workforce today will leave the profession within their first five years of service. To ensure the quality and quantity of teachers in America's schools, NCTAF calls for more and better programs of teacher

induction. It suggests that the solution lies not in identifying enough new recruits but in retaining the novice teachers that enter the profession each year.

Alston's work (1997) outlines several factors contributing to teacher dissatisfaction and attrition:

- New teachers perceive a lack of support.
- Experienced teachers see it as the role of the principal to support the new teacher.
- New teachers fail to ask for help.
- Experienced teachers fail to offer help.
- New teachers are not familiar with the school and/or community.

Darling-Hammond (1984) suggests that new teachers are discontented by bureaucratic restrictions, lack of inclusion in the decision-making process, and lack of administrative support. These novice teachers express concerns regarding the environment in which they work and the perceived lack of collegial and administrative support.

To combat the often-cited feelings of isolation and negativity, a number of suggestions are offered in the literature. Many of these fall under the general responsibilities of the principal's role in the induction process. New teachers reported the following in rank order when asked about the importance of these strategies in the induction process (Gilbert, 2005):

1. Observation of other teachers.
2. Smaller class size.

3. Identification of an appropriate mentor.
4. Planning time with other teachers.
5. Feedback based on classroom observations.

Principals support the induction of new teachers into each building (Andrews & Quinns, 2004; Baker, 2003; and Jindra, 2001). They set the tone for the entire staff and especially for new staff, providing the structure and expectations that ultimately drive student achievement. This support may be seen in the forms of creating a master schedule conducive to new teacher induction, selecting appropriate mentors, providing direct feedback, or being visible. Many roles of the principal that assist in setting the professional culture and climate of a building have direct links to supporting an induction program (Cole, 1993; Sargent, 2003; and Watkins, 2005).

Darling-Hammond (2003) and Heller (2004) speak to the principal's role in building a stronger school culture. Building-level administrators can create learning communities in which the above-mentioned strategies become a natural part of each teacher's workday, but especially a part of the new teacher's induction to their chosen field of professional education. Heller (2004) suggests the primary role of the principal is to build the collective capacity of the school staff. In so doing, principals also serve as advocates for their novice teachers in numerous ways (Darling-Hammond, 2003).

Since 2003, the Commonwealth of Virginia Department of Education has required the inclusion of a research-based approach in each district's individual induction plan. Annually, districts submit new teacher induction plans, including the numbers of individuals to be served, the timeline of that service, the types of support offered, the

research-based model upon which it will be based, and the effectiveness of the previous year's plan (Virginia Department of Education, 2000a). The Superintendent of Public Instruction issues a yearly memo, which advocates for the inclusion of one of three distinct new teacher induction approaches or another research-based model (J. DeMary, Superintendent's Memo, August 15, 2003, August 20, 2004, and August 5, 2005; B. Cannaday, Superintendent's Memo, August 4, 2006, and April 27, 2007; P. Wright, Superintendent's Memo, October 17, 2008). These models are the University of California at Santa Cruz New Teacher Center model, also called the "Santa Cruz" model, the Educational Testing Services Pathwise model, and Fairfax County Public Schools Great Beginnings model.

District and school leaders seek to implement the most effective programs of new teacher induction and increase retention. A careful study of the impact of induction on Virginia's new elementary teachers and the perceived satisfaction regarding the support they have received could provide meaningful data for their consideration. Induction models utilizing the training and experience of instructional leaders will benefit new teachers, increase rates of retention, and build upon the professional culture of the existing staff.

Purpose of the Study

This study investigates the perceptions surrounding the role Virginia elementary school principals play in supporting the induction of new teachers into the education profession. Attention is given to the perceptions that novice teachers hold regarding the elementary principal's role, as well as the perceptions these same principals hold about

themselves. The study focuses on the type of the principal's support, the frequency of that support, and the perceived importance assigned that support. Additionally, the study identifies factors that contribute to making a difference in the perceptions individuals possess: the type of induction program selected and the level of training provided with that model.

First, the type of induction program implemented within a district may impact the perceptions of new teachers and their principals. The Virginia Department of Education advocates for the adoption of one of three specific programs of induction or another research-based method. Each has common characteristics of induction programs (preservice training sessions, assigned mentors, planned programming during the school year), but each differs in some fundamental way. The Santa Cruz program utilizes full-time mentors and induction protocols. ETS Pathwise incorporates part-time mentors and ongoing, programmed training. Great Beginnings offers part-time mentors and inservice training. Given the variation in the focus of induction models, training in a specific program may translate into a heightened sense of importance of certain key factors only. It is important to consider any such interaction when determining the relative strength of a program as measured against a research-based set of criteria regarding types of support.

A second factor is the level of training provided to each group of individuals. More intensive levels of knowledge and training could make a difference in the way new teachers and the principals view the principal's role by providing a more heightened awareness and understanding of each of the types of support. Participants may have extensive knowledge of one program's goals and purposes received through intensive

programmed training, no knowledge of any of the programs, or partial knowledge of the program through its inclusion in the district's offerings. This last category is intended to recognize the reality that, in many instances, districts or schools may use rudimentary knowledge of a new model to create its own version of that same model. In so doing, they have not utilized the full programming available when implementing the entire model but have created their own hybrid.

Rationale and Significance of the Study

The benefits of induction programs have been well documented and include better quality of instructional personnel and increased retention of new teachers (Hare & Heap, 2001; Huling-Austin & Emmer, 1985; Ingersoll & Kralik, 2004; and Johnson & Kardos, 2002). The principal's role in supporting induction is a critical component of successful programs (Brock & Grady, 2001; and Watkins, 2005) and is also well researched. In contrast, the perceptions individuals hold about the principal's support have been studied less frequently, and few of those studies have been conducted large scale. This study will add to that knowledge base in that data were gathered throughout the Commonwealth of Virginia regarding perceptions of the elementary building leader's role in induction and measured the possible impact the choice of program and level of training may have on those perceptions.

Most of the few dissertation studies regarding perceptions of the principal's role were conducted more than a decade ago; only two of the seven studies were completed in the past six years (Bohman, 1988; Carter, 1990; Golden, 2003; Gurule-Gonzales, 1995; Martin, 1997; Powell, 1992; and Wischkaemper, 2005). The data from those studies show

that principals and new teachers disagree on the level of support the principal provides to new teachers. In several studies, while both groups agree on the roles the principal should assume, they perceive the frequency of that support differently (Brock & Grady, 1998; Carter, 1990; and Gurule-Gonzales, 1995). Principals consistently reported offering higher occurrences of support than the new teachers reported receiving. As the focus on induction has increased in Virginia in the last decade (Virginia Department of Education, 1996; Virginia Department of Education, 2000a), it is important to gain current statewide data to determine if these differences of opinion still exist in the commonwealth.

With the current focus on attracting and retaining the most highly qualified teachers, building principals may gain a new appreciation for the expectations of new teachers and their own role in addressing those new teachers' needs. This research adds to the existing body of knowledge by taking a more in-depth look at Virginia's specific history of new teacher induction. This may add to a formulation of local programs of new teacher induction, uniquely designed to address the needs of the individuals within a given district.

Literature Review

Throughout the profession's history, teacher preparation has been afforded much attention. Academies, normal schools, and university schools of education all have played a role in shaping that history (Elsbree, 1970). Today, teachers participating in traditional preparation programs attend a variety of content-specific and pedagogical classes and experience teaching firsthand through numerous practical experiences, including student

teaching. This comes in the form of traditional undergraduate programs, five-year programs, or graduate programs (Feiman-Nemser, 1990).

Additionally, growing numbers of individuals choose to participate in alternative programs (Feistritzer, 2007), which prepare those with experience and training in non-education tracks to become teachers. These individuals bring with them rich life experiences but limited exposure to the pedagogical background of education. Typically offered during night and weekend classes, alternative preparation programs offer limited preservice experiences during a shorter span of time (Allen, 2003; Chung, Darling-Hammond, and Frelow, 2002; and Feiman-Nemser, 1990). Tables 1 and 2 highlight program requirements and characteristics of sample traditional and alternative elementary teacher preparation programs in the commonwealth of Virginia.

Table 1

Sample Virginia Elementary Teacher Preparation Programs

James Madison University	University of Virginia	University of Richmond
Courses	**Courses**	**Courses**
Foundations of Education	Foundations of Education	Foundations of Education
Child Development	Learning & Development	Diverse Learners
Literacy	Language Skills	Instructional Technology
Reading	Reading	Curriculum Methods
Content Area Courses	Content Area Courses	Literacy Development
Differentiation of Inst.	The Exceptional Learner	Content Area Courses
Learning & Teaching	Curriculum & Instruction	Classroom Management
Diversity in Elem. Ed.	Instruction and Assessment	Student Teaching Internship
Families, Schools, Communities	Educational Technology	
3 Practical Experiences	4 Practical Experiences	
Student Teaching Internship	Student Teaching Internship	
Units required	**Units required**	**Units required**
48 undergraduate credit hours	59 undergraduate & graduate credit hours (5 year program)	45 undergraduate credit hours
Length of program	**Length of program**	**Length of program**
Courses taken primarily over 2 years.	Courses taken over 4 years.	Courses taken primarily over 3 years.

Table 2

Sample Virginia Alternative Elementary Teacher Preparation Programs

University of Richmond Teacher Licensure Program	**Old Dominion University Military Career Transition Program**	**Virginia Department of Education Career Switcher Program**
Introductory Seminar Curriculum Methods Classroom Management Seminar in Special Educ. Instructional Technology Content Area Courses Internship	Foundations Effective Instruction Human Growth and Development Instructional Technology Diverse Learning Needs Classroom Management Reading to Learn Language Acquisition Research and Assessment Internship (6-10 weeks minimum)	Curriculum and Instruction Content Area Courses Differentiation Classroom Management Human Growth and Development Instructional Techniques Field Experience Teaching Experience (first year of employment)
Units required 33 undergraduate credit hours; courses typically offered nights and weekends.	**Units required** 36 graduate credit hours; courses typically offered nights and weekends.	**Units required** Minimum of 200 clock hours (approximately 15 credit hours).
Length of program Can be completed in 3 semesters.	**Length of program** Can be completed in 3 semesters.	**Length of program** Level 1 training completed in minimum of 180 clock hours prior to start of teaching. Level 2 seminars completed in minimum of 20 clock hours during first year of teaching.

Ferrini-Mundy, Floden, and Wilson (2001) and Allen (2003) suggest that traditional pre-service training has a positive impact on the quality of instruction and the rate of retention of new teachers. While there is limited research related to alternative programs, it appears that these programs are more effective at creating a diverse teacher candidate pool (Ferrini-Mundy, Floden, & Wilson, 2001). In a summary of a 2003 report that investigates findings of 92 research studies, Allen (2003) suggests that some alternative programs are as effective in preparing teachers as more traditional programs He suggests that further studies are needed to examine the impact of these programs more fully.

Additional research suggests that, regardless of the preparation path, teachers must come prepared to meet the challenges of the job, and appropriate efforts to introduce them into the new profession must be made (Bartfai, et. al., 1999). New teachers must be equipped to work collaboratively with colleagues and to learn new knowledge and skills as they move along a continuum of growth. Some sort of organized and sustained introduction is called for in meeting these needs of new teachers.

One finds the earliest records of state-mandated programs of teacher induction programs starting around 1980 (Parkerson & Parkerson, 2001). Many of these early programs focused on the minimal knowledge and skills teachers should master. For example, one such program in Florida included little more than workshop training in academic subject matter and classroom management skills. More current research focuses attention on new teachers' need for ongoing, structured support in order to make

informed decisions about their teaching and to manage the classrooms and students they have been assigned (Alston, 1997). Alston suggests that induction programs address teachers' perceived lack of support, their failure to seek assistance, and their lack of familiarity with the school community.

Breaux (2003) defines induction as including a structured and systematic method of providing support to new teachers in their first two or more years. Programs of induction are shown to have a direct impact on the retention of new teachers. Hare and Heap (2001) found them to reduce attrition by more than two-thirds. Odell & Ferrano (1992) found that 80% of new teachers experiencing such programs remained in their roles after five years. Huling-Austin and Emmer (1985) and Odell (1986) suggest that induction also improves the quality of instructional personnel. These programs address the lack of socialization and lack of support so many new teachers lament.

The Virginia Department of Education advocates the use of one of three specific induction programs or another research-based model (J. DeMary, Superintendent's Memos, August 15, 2003, August 20, 2004, and August 5, 2005; B. Cannaday, Superintendent's Memo, August 4, 2006, and April 27, 2007; P. Wright, Superintendent's Memo, October 17, 2008). The literature on the three programs suggests that each has proven beneficial in efforts to retain teachers and/or increase the quality of instruction. The Santa Cruz program has shown success in retaining teachers (Strong, 2005). As many as 88% of new teachers participating in this approach remained in the profession for a period of six years. This model utilizes full-time mentors to implement protocols of teacher self-assessment and individual plan development. In the ETS

Pathwise model, full-time teachers serve as mentors to new teachers and coordinate training of ten pre-determined modules. Ninety percent of new teachers participating in a Pathwise induction program in New Jersey returned for a second year (Holbert & Raffel, 2006). A review of the literature on Great Beginnings suggests that 90% of teachers experiencing this program in a given year returned for a second year (Auten, Berry, Cochran, & Mullen, 2002). The Great Beginnings model is based primarily on a six-day summer institute and monthly meetings focused on predetermined topics and facilitated by mentors, who are also full-time teachers.

The Virginia Standards of Accreditation state that the principal holds particular responsibilities for the professional growth of his or her staff members. As the instructional leader in the building, the principal is required to involve all staff in identifying professional development needs, to provide that staff development, and to ensure that staff attend (Virginia Department of Education, 2000c). The principal is responsible for the professional growth of these individuals and is particularly responsible for ensuring the instructional quality of personnel (Virginia Department of Education, 2000b). In many ways, the principal is the gatekeeper in terms of the quality of the teaching force.

A review of research suggests that the principal plays a crucial role in supporting the induction of new teachers by coordinating the focus of these efforts and especially by establishing a professional culture of collegiality within the building (Andrews & Quinns, 2004; Baker, 2003; Bohman, 1988; Caruso, 1990; Golden, 2003; Jindra, 2001; and Powell, 1992). Principals provide the structure and expectations that ultimately drive

student achievement. This support may be seen in various forms: shared leadership, scheduling, selection of mentors, observation and feedback, or visibility.

There appears to exist some incongruity regarding the actual level of agreement between teachers and principals. While new teachers and principals agree regarding the types of roles the principal should play, they disagree on the levels of service the principals actually provide (Brock & Grady, 1998; Carter, 1990; Golden, 2003; Gurule-Gonzales, 1995; Martin, 1997; Powell, 1992; and Siefert & Beck, 1981). Researchers suggest the need for further investigation to understand these perceptions better.

Research Questions

This study focuses on questions regarding differences between Virginia teachers' and principals' perceptions of the elementary principal's role in the induction process. Additionally, this study explores whether or not the choice of induction program and the amount of training play a significant role in shaping those perceptions.

More specifically stated, the research questions are

1. Do teachers' perceptions differ from principals' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction?
2. Is there a difference in teachers' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction, according to the type of induction program and the reported level of teacher training?
3. Is there a difference in principals' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of

induction, according to the type of induction program and the reported level of principal training?

Methodology

This study utilized a non-experimental, comparative study design to investigate perceptions regarding the Virginia elementary principal's role in teacher induction. A census of Virginia's new elementary teachers and their principals was conducted, with survey administration and data collection occurring in the spring and summer of 2008. New teachers were those individuals who began their teaching careers during that school year. Statewide collection of data provided more definitive data regarding the relative effects of the three state-sanctioned programs of new teacher induction as well as of locally developed models.

Gurule-Gonzales' 1995 survey of perceptions regarding the principal's role in teacher induction was used to gather data for further analysis. Utilizing a Likert-type scale, thirty-nine items were used to gather participant's perceptions regarding the importance assigned the various types of principal support and the perceived frequency of that support. New teachers and principals were asked additional demographic questions to gather data as it related to gender, age, ethnicity, degrees earned, type of preparatory program (teachers), and previous experience (principals). Six additional questions were included on the principal instrument to gather data relating to school setting, school socio-economic status, size of student body, school diversity, and school location. Two survey questions were asked of both participant groups to identify the type of induction program used and the level of training provided for them. One additional question was

asked of principals to ascertain the level of experience they have with using the selected program model.

Internet survey data were collected electronically through the use of an online survey utilizing *Inquisite* software (2006), which delivered the survey results directly into a database for analysis. The data collection process followed procedures suggested by Dillman (2007). Once the data collection period was completed, quantitative statistical analyses of data were conducted using the Statistical Package for the Social Sciences (SPSS), Version 11.0.2 for Macintosh OSX.

In the spring and summer of 2009, a telephone interview was conducted with four pairs of new teachers and principals representing the four types of mentoring models under review: ETS Pathwise, Great Beginnings, Santa Cruz, and locally developed. Because the return rate of the original Internet-based survey was lower than anticipated, this telephone interview was added to confirm the findings of that survey. Telephone interviews were taped and transcribed. A third party reviewed the transcriptions for accuracy, and a peer reviewer validated the coding of new teacher and principal responses.

Summary

With the changing supply of individuals choosing elementary education as a profession and the need to retain new elementary teachers in their current roles comes a renewed emphasis on the impact of participation in an induction program. This study examines the roles Virginia elementary principals play in the induction process and how new teachers perceive these roles. Because Virginia has encouraged the use of one of

three specific models of induction or a locally, research-based model, additional attention is placed on the impact training and experience in one of these models has and the degree to which varying levels of that training influences those perceptions.

CHAPTER 2

REVIEW OF THE LITERATURE

One of the first studies to focus attention on the needs of new teachers was the Conant Report (1963). This groundbreaking work concluded that professionals in the field of education should be as concerned with new teachers' ability to teach as they are with their content knowledge. Conant suggested that a four-year preparatory program is simply not enough to meet the needs of the first year teacher and advocated for a more systematic program of introducing the new teacher into his or her chosen profession.

A limited number of additional studies related to the needs of novice teachers occurred in the next twenty years. Lortie (1975) found that a primary concern with the introduction of the new teacher into the field was the relative isolation. Teaching is one of the few professions in which the new teacher is expected to possess similar, if not the same, knowledge and skills as a twenty-year veteran and is often left alone to solve the obstacles encountered in working with students. Veenman (1984) compiled the results of eighty-three previous studies and concluded that the move from the preparatory program into one's own classroom is a daunting experience – one for which most new teachers are ill prepared. He noted isolation, peer and administrator expectations, and the desire to prove one's own worth as common feelings experienced by the new teacher. Veenman also suggested that the principal plays a key role in addressing these issues and in the new teacher's acculturation into this new profession.

With the publication of *A Nation at Risk* (1983) and *A Nation Prepared* (1986), the call was made to provide schools with the most highly qualified teachers and to break down the barriers that create teacher isolation and disillusionment. Recent legislation, *No Child Left Behind* (2001), has again voiced the call for high quality instruction and places particular emphasis on the professional development of the nation's teachers. With these has come a renewed, focused interest in the induction of new teachers into the profession as one effort to ensure that highly qualified instructors are available for all students.

The purpose of this chapter is to review the literature on new teacher induction and the principal's role in that induction. To provide a framework to understand better the perceptions novice teachers and principals hold regarding principal's roles of support, this review focuses on the following areas: teacher preparation, induction more generally, state and regional responses to induction, the role of the principal in new teacher induction, and perceptions about the principal's role. An investigation of these areas and the relevant research will provide a better understanding of the problem at a theoretical level before delving into the more practical applications of the questions at hand.

The literature search was conducted using physical print resources as well as the following electronic search resources available at the Virginia Commonwealth University library – Ovid Web Gateway Databases, Thomson-Gale's Academic OneFile and InfoTrac OneFile, OCLC FirstSearch, ERIC Index, and LexisNexis Academic. Additionally, this search included a review of resources available at the Virginia Department of Education's website and a search for literature found through the use of Google Scholar. Topics and key words of the search included the following:

- Induction and program(s) of induction
- New Teacher
- Principal's (also principals') role(s)
- Perceptions
- Santa Cruz and New Teacher Center
- ETS Pathwise
- Great Beginnings

Teacher Preparation

Teacher preparation has been a critical component of education as a profession throughout its history. Early teachers possessed little more than a basic education themselves. Shortly after the birth of the nation, there was an increase in the number of schools focused on the training of grammar school teachers. During the latter half of the 19th century, universities began to develop programs focused on the training of administrators and secondary teachers. During the early 20th century, programs of teacher training similar to those known today were established (Elsbree, 1970).

Today, teachers participating in preparation programs attend many content-specific and pedagogical classes and experience teaching firsthand through a variety of practical experiences, including student teaching. Approaches include traditional undergraduate programs, five-year programs, graduate programs, or alternative preparation programs (Feiman-Nemser, 1990). Growing numbers of individuals are choosing alternative preparation programs, aimed at preparing those with undergraduate degrees in other fields to become teachers. Numbers of individuals participating in these

programs have grown from 39,000 in 2003-2004 to about 59,000 in 2005-2006 (Feistritzer, 2007).

These individuals bring with them rich life experiences but limited exposure to the pedagogical background of education. Participation in alternative preparation programs provides limited preservice experiences, as compared to more traditional preparation programs (Allen, 2003; Feiman-Nemser, 1990; and Chung, Darling-Hammond, and Frelow, 2002). A more limited number of courses are offered typically during night and weekend classes over a shorter period of time. Those individuals participating in alternative preparation programs in Virginia are required to complete fewer course credits than their traditional path colleagues. They also engage in fewer practical experiences. The overall length of the program can be as little as one to three semesters, compared to the two to four year programs required in more traditional programs. [Note: Tables 1 and 2 provide an overview of sample Virginia preparation and alternative preparation programs.]

Research suggests that traditional pre-service teacher preparation, in the forms of content area training, pedagogical training, and practical experiences, has an impact on the quality of instruction and the rate of retention of new teachers (Allen, 2003; and Ferrini-Mundy, Floden, & Wilson, 2001). Chung, Darling-Hammond, and Frelow (2002) found that teachers who participated in traditional programs felt better prepared for their new jobs than did their colleagues who participated in alternative programs. They believe that program effects might outweigh individual differences of the teachers themselves.

While there is limited information related to alternative programs, Allen suggests that alternatively prepared new teachers may experience more difficulty in the first years of their new jobs due to a lack of preservice field experiences but ultimately perform as well as those prepared in more traditional programs. Ferrini-Mundy, Floden, and Wilson suggest that alternative programs are more effective at increasing the diversity of teachers. Individuals who might not otherwise enter the teaching force are finding their way to the classroom.

It is difficult to compare the relative impact of each type of program due to the wide spectrum of program attributes (Feiman-Nemser, 1990). Some alternative programs may actually resemble traditional programs more closely than might otherwise be assumed (Ferrini-Mundy, Floden, & Wilson). The impact of alternative programs on rates of retention are also difficult to judge, given the more recent growth and development in alternative route programs (Allen; and Ferrini-Mundy, Floden, & Wilson).

Regardless of the preparation path, teachers must be equipped for the modern classroom and the challenges it will bring, and measures must be taken to ensure that they are properly introduced into the profession (Bartfai, et. al., 1999). New teachers should be able to work collaboratively with colleagues and have the willingness to learn new knowledge and skills each day. Chung, Darling-Hammond, and Frelow (2002) and Bartfai, et. al. found that those teachers participating in alternative preparation programs felt that they were less prepared for their duties than their peers who had experienced traditional programs. Systematic and sustained efforts to introduce all new teachers into their chosen profession are needed.

Induction

Breaux (2003) defines induction as "a highly structured, systematic means of training and supporting new teachers beginning before their first day of teaching and continuing throughout their first two or three years" (p. xi). Suggesting a marked difference between the typical mentorship program and a truly systematic program of induction, she states that induction includes a deliberate system of training, which assists the novice teacher in acquiring the skills, knowledge, and dispositions necessary to become a masterful teacher. Programs of new teacher induction have the power to increase retention of novice teachers (Hare & Heap, 2001; Huling-Austin, 1992; Huling-Austin & Emmer, 1985; Johnson & Kardos, 2002; Ingersoll & Kralik, 2004; and Odell & Ferrano, 1992) and improve the quality of instructional personnel (Huling-Austin & Emmer, 1985; Ingersoll & Kralik, 2004; and Odell, 1986).

Induction Program Components

Programs of new teacher induction include many factors. Among those are procedures to assist novice teachers in developing instructional and management practices, to assist them in developing a stronger awareness of the local school community, and to encourage them to develop a love of learning and professional growth (Wong, 2002). These may occur during orientation meetings, during workshops, or through some sort of other support system, often mentoring (Ingersoll & Smith, 2004). Brock and Grady (1998), Rowland, Sterling, and Wong (1999), Hare and Heap (2001), Horn, Sterling, and Subhan (2002), and Watkins (2005) have helped shape the present understanding of key components of quality induction programs. Common in all of these

works is the need for systematic professional development focused on the learning needs of the individual novice teacher. Such a program should include training, mentorship, administrative support, and ongoing feedback.

Brock and Grady (1998) created a framework for induction programs (see Table 3). They suggest that new teachers are on a quest towards professional excellence and induction affords them the opportunity to develop or refine those skills that are lacking. Critical components of a new teacher induction system include a cohesive plan, initial assistance, a needs assessment, orientation and first week assistance, and ongoing assistance.

Table 3

Brock and Grady's Framework for an Induction Program

Program development	Develop a written plan defining key components of the program, such as goals and objectives, responsible parties, resources needed, criteria for mentor selection and training, and a process for program evaluation.
Initial assistance	Welcome the beginning teachers, introduce them to their mentors, and attend to any immediate concerns and needs.
Needs assessment	Conduct periodic needs assessment to determine appropriate induction activities.
Opening orientation	Acquaint the newcomers with the school, personnel, and population served.
During the first week	Have mentors monitor and provide support throughout the critical first week.
Throughout the first-year	Periodic meetings with the principal, frequent interactions with mentors, periodic informational meetings, support seminars, peer observations, videotaping, co-teaching, and portfolio development.

Source: Brock & Grady, 1998.

In a qualitative study of 15 teachers throughout the state of Arizona, Rowland, Sterling, and Wong (1999) found the following characteristics of effective induction programs:

1) mentoring
2) administrative support
3) special inservices and training for beginning teachers
4) special assistance for specific content-area teachers (such as science teachers)

Induction should be seen as part of a larger system of educational reform and not just as a program aimed at assistance to the beginning teacher. Joining Glickman (2002) and Lindstrom and Speck (2004), these authors found that the most effective induction programs were variable and individualized.

Hare and Heap (2001) in work with the North Central Regional Education Laboratory suggest several attributes of induction programs that support healthier work environments for the new teacher. These include

1) specific expectations of novice teachers
2) explanations of organizational rituals
3) assistance in applying knowledge, skills, beliefs, and attitudes
4) guidance and assessment by a trained mentor
5) assistance in meeting licensure standards

Horn, Sterling, and Subhan (2002) replicated the Rowland, Sterling, and Wong study and again looked at induction programs throughout the state of Arizona. Through their research of the extant literature, they identified nine common elements of induction programs, against which their state programs were judged. Those nine common elements are

1) orientation
2) mentoring
3) adjustment of working conditions
4) release time
5) professional development

6) collegial collaboration

7) teacher assessment

8) program evaluation

9) follow-up into the second year

They found that the more evident these characteristics were in programs of induction the more likely the results would include higher teacher retention, better teaching practice, and increased student achievement.

Watkins (2005) found that programs of new teacher induction must foster professional learning communities within their schools and should focus on three critical components: a strong mentor, action research, and collegial discussion and learning among all staff members as evidenced in study groups. He concluded that the principal plays a key role in establishing the culture and school environment that supports such a professional learning team mentality (Table 4 provides a summary of the induction research).

Table 4

Key Components of Induction Programs

Brock and Grady (1998)	**Rowland, Sterling, and Wong (1999)**	**Hare and Heap (2001)**	**Horn, Sterling, and Subhan (2002)**	**Watkins (2005)**
Program development	Mentoring	Guidance and assessment by a mentor	Mentoring & orientation	Assignment of a strong mentor
Initial assistance	Administrative support	Specific expectations of the novice	Adjustment of working conditions & release time	Inclusion of active research
Needs assessment	Inservices and training for beginning teachers	Explanations of organizational rituals	Collegial collaboration	Collegial discussion and learning among all staff
Opening orientation	Special assistance for specific content-area teachers	Assistance in applying knowledge, skills, beliefs, and attitudes	Professional development & teacher assessment	
Assistance during the first week		Assistance in meeting licensure standards	Program evaluation	
Assistance throughout the first year			Follow-up into the second year	

Source: Brock & Grady, 1998; Hare & Heap, 2001; Horn, Sterling, & Subhan, 2002; Rowland, Sterling, & Wong, 1999; and Watkins, 2005.

Regional and State Response to Induction

In 2008, induction programs are required and funded in twenty-two states – Alabama, Arkansas, California, Connecticut, Delaware, Indiana, Iowa, Kentucky, Louisiana, Maine, Massachusetts, Michigan, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Utah, West Virginia, and Wisconsin

(Education Week, 2008). In addition to the states requiring induction programs, three additional ones – Missouri, New York, and Virginia – require and fund mentor programs specifically. These numbers have grown in the last two decades (see Table 5). Weiss and Weiss (1999) share statistics from 1984 indicating that eight states required some type of induction program. Brooks' (1987) study of states efforts at induction show that in 1987 eighteen states had no statewide program, fifteen were in planning stages, six were piloting some program of induction, and eleven had implemented full programs. In 2000 Sweeney and Deblot (2000) found that 28% of states required mentor programs, with eight more planning to implement a program in a few years and five planning to expand on then current programs. In 2004 induction programs were offered in thirty states with sixteen of those requiring and financing programs for all its new teachers (Education Week, 2005).

Table 5

Number of States Requiring and/or Financing Induction or Mentoring Programs

Year	Number of States
1984	8
1987	11
2000	19
2004	30/16*
2008	22*

Note. *Data reflect the number of programs required and financed at the state level.
Source: Brooks, 1987; Education Week, 2005; Education Week, 2008; Sweeney & Deblot, 2000; and Weiss & Weiss, 1999.

The percentage of new teachers experiencing induction programs has also grown during the same time period (see Table 6). Ingersoll and Smith (2004) found that 51% of teachers in 1990-1991 reported inclusion in an induction program. Darling-Hammond (1997) suggests that in 1997, of teachers with fewer than 5 years experience, 55% reported receiving any formal type of induction. That rose to 64% of teachers employed in the 1999-2000 school year and 70% of those employed in 2003-2004 (National Center for Education Statistics, 2007). The American Association of State Colleges and Universities (2006) reports that current rates have continued to increase. More than 80% of surveyed new teachers reported participation in some type of induction or mentoring program.

Table 6

Percentage of New Teachers Experiencing Induction or Mentoring Programs

Year	Percentage of New Teachers
1991	51
1997	55
2000	64
2004	70
2006	80

Source: American Association of State Colleges and Universities, 2006; Darling-Hammond, 1997; Ingersoll & Smith, 2004; and National Center for Education Statistics, 2007.

A more thorough knowledge of the content of induction programs throughout the country is made difficult by the variation in terminology and requirements of the various states. The term induction is used to describe lesser quality as well as multiple-level

programs (American Association of State Colleges and Universities, 2006). Smith's (2007) review of mentoring programs throughout the country reflects this variation. Overall, he found that states with requirements regarding the matching of mentors by subject, grade, or school and with mentoring programs tied to standards, assessments, and accountability had lower attrition rates of new teachers. The EPE Research Center (2008) reports that of the twenty-two states mandating induction programs, fourteen require performance assessment, eleven require professional development, nine require observations, eight require orientation sessions, and five require individual growth plans. Of the twenty states with standards related directly to mentoring, nineteen offer directions on the selection of mentors, fourteen provide guidelines for mentor training, and ten suggest ways to match new teachers and mentors. (Table 7 provides statistics related to state requirements for induction and mentoring programs).

Table 7

State Requirements for Induction and Mentoring Progams (2008)

	New teachers participate in a state-funded induction program	New teachers participate in a state-funded mentoring program	Number of years of state-financed and required induction	Standards for selecting, training, and/or matching mentors	State has a reduced-workload policy for first-year teachers
Alabama	Yes	Yes	1	Yes	No
Alaska	No	No	--	No	No
Arizona	No	No	--	No	No
Arkansas	Yes	Yes	1	Yes	No
California	Yes	Yes	2	Yes	No
Colorado	No	No	--	No	No
Connecticut	Yes	Yes	2	Yes	No
Delaware	Yes	Yes	1	Yes	No
Florida	No	No	--	No	No
Georgia	No	No	--	No	No
Hawaii	No	No	--	No	No
Idaho	No	No	--	No	No
Illinois	No	No	--	No	No
Indiana	Yes	Yes	2	Yes	No
Iowa	Yes	Yes	2	Yes	No
Kansas	No	No	--	No	No
Kentucky	Yes	Yes	1	Yes	No
Louisiana	Yes	Yes	2	Yes	No
Maine	Yes	Yes	2	Yes	No
Maryland	No	No	--	No	No
Massachusetts	Yes	Yes	1	Yes	No
Michigan	Yes	Yes	3	No	No
Minnesota	No	No	--	No	No
Mississippi	No	No	--	No	No
Missouri	No	Yes	--	No	No
Montana	No	No	--	No	No
Nebraska	No	No	--	No	No
Nevada	No	No	--	No	No
New Hampshire	No	No	--	No	No
New Jersey	Yes	Yes	30 weeks	Yes	No
New Mexico	Yes	Yes	1	No	No

Table 7. (continued)

	New teachers participate in a state-funded induction program	New teachers participate in a state-funded mentoring program	Number of years of state-financed and required induction	Standards for selecting, training, and/or matching mentors	State has a reduced-workload policy for first-year teachers
New York	No	Yes	--	No	No
North Carolina	Yes	Yes	3	Yes	Yes
North Dakota	No	No	--	No	No
Ohio	Yes	Yes	1	Yes	No
Oklahoma	Yes	Yes	1	Yes	No
Oregon	No	No	--	No	No
Pennsylvania	Yes	Yes	1	No	No
Rhode Island	No	No	--	No	No
South Carolina	Yes	Yes	1	Yes	Yes
South Dakota	No	No	--	No	No
Tennessee	No	No	--	No	No
Texas	No	No	--	No	No
Utah	Yes	Yes	3	Yes	No
Vermont	No	No	--	No	No
Virginia	No	Yes	--	Yes	No
Washington	No	No	--	No	No
West Virginia	Yes	Yes	1	Yes	No
Wisconsin	Yes	Yes	--	Yes	No
Wyoming	No	No	--	No	No
U.S.	**22**	**25**	**--**	**20**	**2**

Source: EPE Research Center, 2008.

Data from past studies of southern states suggest similar variations. Education Week (2000) reported statistics from southern states showing that twelve states mandated programs of induction, with only four of those having a uniform program design. Other states, including Virginia at that time, provided general guidelines, leaving the ultimate program format to the individual district. Barnett, Hoke, and Hopkins-Thompson (2002) found that most states in their Southeast Center for Teaching Quality study had some sort

of program in place or were developing one. However, the quality and funding of those programs varied widely from state to state. Within the states contained in the study, there was a wide range in policies regarding the matching of mentors and new teachers, observation protocols, and reliable tracking of data. States included in this study provided between $500 in Georgia to $2,829 in North Carolina. By comparison, those induction programs recognized as offering the highest quality programs invest between $3,000 and $5,000 per new teacher annually.

Horn, Sterling, and Subhan (2002) reiterate the concern regarding funding practices at the state level. They suggest that one major deterrent to providing a consistent induction effort across a state is adequate funding to the local division. Hull (2003) joins in that discussion, stating that too often districts must provide the funding for these programs. In some areas, this results in a lack of funding or lack of capacity to monitor and assess the effectiveness of training in addition to funding the actual programs.

Rowland, Sterling, and Wong (1999) found that induction programs across the state of Arizona differed greatly. These findings were substantiated in additional work by Horn, Sterling, and Subhan (2002), who replicated the study on a larger scale throughout Arizona to see how districts were addressing induction. This telephone survey of all 225 districts found that only 17.3% addressed the needs of the novice teacher in any sort of systematic, organized fashion. There appeared to be misconceptions regarding what true induction is. Most programs considered to be “high intensity” programs were found in urban areas and in large school districts. More than 50% of districts reported “low

intensity" programs with minimal service and support. Most of those were in rural areas. More than 30% of districts offered no induction program.

In a study of programs in Illinois, Wisconsin, and Ohio, Bartlett, Johnson, Lopez, Sugarman, and Wilson, (2005) found that recent efforts in all three states have increased but that each was at a very different place on a continuum of induction efforts. Each state had linked induction to the credentialing system within the state, but the authors found that each needed to articulate the goals and outcomes of the programs more fully. They suggested that inadequate state funding of induction programs could actually widen the student achievement gap. Poorer districts can ill afford to sponsor the types of programs that their wealthier counterparts can. They found that Illinois had no mandates and no funding for induction programs. Wisconsin mandated programs but provided no funding. Ohio provided both mandates and funding. The authors concluded that "Induction matters – and the type of induction matters even more. It is clear that there is much variation in the form that induction takes in practice, and within the many possible components that programs may include" (p. 49). They suggest that states should ensure consistent induction programs in an effort to ensure equitable access to quality education for all students.

Induction as Teacher Development

Early research on teacher induction focused more on the stages of teacher development (Fuller, 1969; Glassberg, 1979; and Katz, 1972). These early studies tend to group all new teachers into relatively the same stages regardless of their individual backgrounds or needs. More recently, Lindstrom and Speck (2004) offer several stages of development

for teachers (see Table 8) and suggest that a "one-size-fits-all" support model or plan of professional growth will impede efforts to aid the development of the novice teacher. They identify four distinct stages of teacher growth and development and suggest that these stages are not the same for all teachers. The duration of each varies according to the particular strengths, needs, and circumstances of the individual.

Table 8

Stages of Teacher Growth and Development

Career Stage	**Developmental Needs**
Formative years (1-2 years)	Learning day-to-day operations of classroom and school
Building years (3-5 years)	Developing confidence in work and multifaceted role of teaching
Striving years (5-8+ years)	Developing professionally and achieving high job satisfaction
Career wind-down & end (towards the end of a career)	Teacher burnout and need for renewal Complacency sets in and innovation is low High status as a teacher without exerting much effort Retirement

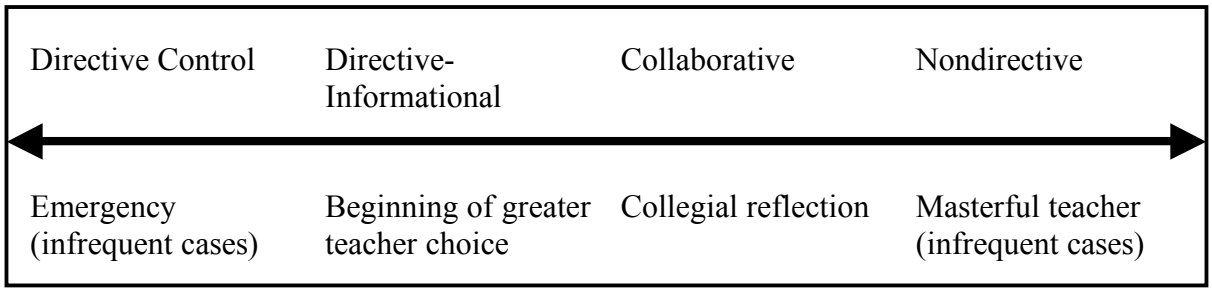
Source: Lindstrom & Speck, 2004.

The stages focus on a variety of developmental needs, from the day-to-day management of a classroom to achieving a high rate of job satisfaction and becoming a true professional educator. Teacher development efforts should include a variety of activities to meet the diverse needs of all teacher populations. Activities that fit the needs

of the individual in the striving years (such as lesson studies, book reviews, action research, and professional conferences) may not meet the needs of the individual in the formative years struggling to surmount the day-to-day challenges of the classroom. The novice teacher needs activities of an induction program that are geared overtly to address his or her formative needs.

Glickman (2002) also suggests that professional development efforts must vary to meet the developmental needs of a variety of teacher learners. Teachers move along a continuum of ongoing growth and learning (see Figure 1). Relatively few teachers find themselves at the stage he labels directive-control. These individuals require much more careful administrative attention and direct supervisory intervention to assist them in meeting the day-to-day challenges of instruction and management. A larger number of these teachers are likely to be novice teachers, requiring more intense induction support to address their needs. Most teachers need less direct administrative supervision and are equipped to work collaboratively with their teammates. Labeled directive-informational and collaborative, these stages may include novice teachers, making the need for variation in induction efforts all the more important. Lastly, a few teachers reach the stage of master teacher. Needing little or no administrative support or direction, these individuals are capable of balancing the finer nuances of curriculum, instruction, and management to operate at an optimum level of expertise. All teachers move along this continuum at various rates, making the case for variability and individualization of programs for all teachers, but especially for the novice teachers who do not begin at the exact same point on the continuum.

Figure 1. Continuum of Teacher Development



Source: Glickman, C. (2002). *Leadership for learning: how to help teachers succeed.* Alexandria, VA: Association for Supervision and Curriculum Development, 84.

Induction Purposes

New teachers express concerns regarding a lack of socialization, demands to perform like veteran teachers, and a lack of ongoing, formative assessment (Kestner, 1994; Odell, 1986). While concerned that they are compared to the professionals around them, they do not feel that they have the formal structures and administrative feedback necessary to support their professional growth needs. Alston (1997) suggests several factors contributing to their dissatisfaction and the resulting higher attrition rates:

- New teachers perceive a lack of support.
- Experienced teachers see it as the role of the principal to support the new teacher.
- New teachers fail to ask for help.
- Experienced teachers fail to offer help.
- New teachers are not familiar with the school and/or community.

Darling-Hammond (1984) finds that new teachers are discontented by bureaucratic restrictions, lack of inclusion in the decision-making process, and lack of administrative support. Isolated by the solitary nature of classroom teaching, the nation's newest teachers express frustration at being overwhelmed by the complexity of teaching and feel that administrators do not do enough to support their day-to-day needs. These novice teachers voice concerns regarding the environment in which they work and perceive a lack of both collegial and administrative support.

To address these concerns, Robinson (1998) encourages educational leaders to offer stronger programs of professional development in the first years of a new teacher's career. He reviewed several studies and programs of induction in Midwestern states and concludes that novice teachers set perceptions regarding the profession of education based on experiences in their first few years of teaching. Too often during this impressionable time, negative perceptions can be fostered that have a direct impact on the new teacher's future career. New teachers need systematic, structured support in order to make informed decisions about their teaching and to manage the classrooms and students they have been assigned (Alston, 1997).

A review of the extant literature provides several goals and strategies that could assist in addressing these identified needs (Huling-Austin, 1988; Ingersoll, 2001; National Education Association, 2003). In a synthesis of seventeen previous studies, Huling-Austin identified five common goals of induction programs:

- improve teaching performance
- increase retention in induction years

- promote personal and professional well-being
- satisfy mandated requirements of mentor programs and certification
- transmit the culture of the school or system to the new teacher.

In *Meeting the Challenges of Recruitment and Retention*, The National Education Association offers four specific strategies to assist in retaining the current workforce:

- prepare teachers adequately
- nurture new teachers
- improve the working environment
- provide financial incentives

Suggesting that the issue has more to do with the organizational characteristics of schools than recruiting adequate numbers of new teachers, Ingersoll offers a similar list of strategies to address the concerns of teacher retention:

- increase support from the school administration
- decrease discipline problems
- increase shared decision making
- increase salaries

The above lists include strategies addressed in many programs of new teacher induction and offer insights into the ways in which building-level administrators can begin to foster a more supportive work environment. Researchers (Brock & Grady, 1998; Hare & Heap, 2001; Horn, Sterling & Subhan, 2002; Ingersoll & Smith, 2004; Johnson, 2004; Rowland, Sterling, & Wong, 1999; and Watkins, 2005) recommend that systematic programs of new teacher induction should incorporate specific key components,

including new teacher training, mentoring, administrative support, and ongoing formative evaluation. To address the concerns voiced by new teachers and to achieve the purposes of induction, these components must be present in any modern induction program. Table 9 provides a compilation of new teacher concerns and suggested strategies.

Table 9

New Teacher Concerns and Suggested Induction Strategies

New Teacher Concerns
Lack of socialization
Expectations to perform like veteran
Lack of ongoing, formative assessment
Lack of administrative support
New teachers fail to ask for help (isolation)
Experienced teachers fail to offer help and expect principal to provide support.
Lack of familiarity with school/community.
Bureaucratic restrictions
Lack of inclusion in decision making

Suggested Induction Strategies
Nurture new teachers
Improve working environments
Provide financial incentives
Offer an initial orientation
Provide mentoring
Offer ongoing support
Provide ongoing, formative assessment
Provide formal administrative evaluation

Induction Benefits

Researchers suggest that the benefits of participation in induction programs include increased new teacher efficacy and retention. In separate dissertation studies,

Berry-Rickert (2007), Brown (2007), Dangler (2007), and LoCasale-Crouch (2007) found a positive correlation between induction program participation and new teachers' expressions of satisfaction. From an interview with fifty teachers, Burkland, Johnson, Kardos, Kauffman, Liu, and Peske (2001) found that support and training has the most to do with whether a new teacher will remain in a current role and be satisfied in that role. Ingersoll and Smith (2004) found that attrition rates of new teachers in 2000 – 2001 were cut from 20% to 9% with the introduction of basic induction, collaboration, teacher networking, and additional resources. A 2001 NCREL report (Hare & Heap, 2001) found that induction programs can reduce attrition rates by more than two-thirds, especially as they relate to minority staff members and those working in "hard-to-staff" schools. More than 50% of states in this study, which implemented induction programs, found that those programs were very successful in reducing attrition rates.

More recent studies (Auten, Berry, Cochran, & Mullen, 2002; Holbert & Raffel, 2006; and Strong, 2005) of programs in California, New Jersey, and Virginia suggest that this number has risen significantly. According to these research findings, between 90% and 94% of new teachers who were involved in recognized programs of induction planned to return to teaching for a second year. Similarly, Wong (2003) reports that efforts in Lafourche Parish schools in Louisiana resulted in a drop in attrition rates from 51% in 1996 to 7% in 2003. The induction program utilized in that district includes an early orientation, networking/socialization opportunities for new and veteran teachers, mentoring, and administrative support.

Induction efforts have a cost benefit as well. Hull (2003) states that programs of induction are much more cost effective than recruitment efforts by comparison. Darling-Hammond and Goodwin (1993) suggest that replacing a veteran teacher with a younger new teacher who is 50% likely to leave will only make matters worse. There is no return on the investment of costs incurred with induction programs and recruitment efforts when a new teacher leaves. Huling-Austin and Murphy (1987) reviewed programs sponsored by ten districts in eight states and concluded that the assignment of an appropriate mentor, a key element of induction programs, may be one of the most cost effective measures towards addressing retention of teachers.

In a 2005 NCTAF report, Fulton, Lee, and Yoon (2005) estimate that it costs the nation's schools $2.6 billion yearly for lost teachers. Putting that into per capita cost estimates, the Texas Center for Educational Research (2000) suggests a cost of $8,478 for each new teacher lost. Breaux and Wong (2003) estimate that cost to be almost $50,000 per new teacher, which includes the costs of recruitment, induction, stipends, equipment, and other related costs.

National Models of Induction

The National Education Association (NEA) (2006) has created a partnership award to recognize effective programs of new teacher induction. To be considered for the award, programs must contain the component of mentoring and at least two of the following additional components: appropriate staffing, common planning time with mentors, ongoing professional learning opportunities, interaction with other teachers, and formal evaluation of new teachers based on standards. The National Governor's

Association Center for Best Practices (Curran & Goldrick, 2002) suggests those same components as critical elements of effective teacher induction programs. Programs gaining national recognition are Connecticut's Beginning Educator Support and Training (BEST), California's Beginning Teacher Support and Assessment (BTSA), the Louisiana Teaching Assistance and Assessment Program (LTAAP), and the Toledo, Ohio model. These programs combine the components suggested by the NEA (National Comprehensive Center for Teacher Quality, 2005), as well as other research studies previously mentioned (Brock & Grady, 1998; Hare & Heap, 2001; Horn, Sterling & Subhan, 2002; Rowland, Sterling, & Wong, 1999; and Watkins, 2005) and have proven successful where implemented.

The Beginning Teacher Support and Assessment (BTSA) program in California began in 1988 as the California New Teacher Project and was later adopted by the legislature as a state-wide requirement for professional licensure (National Comprehensive Center for Teacher Quality, 2005). It allows districts flexibility in implementing induction models while holding them accountable to the California Standards of Quality and Effectiveness for Professional Teacher and Induction Programs. Core components of those standards include individualized mentoring through the first two years, a beginning orientation, training workshops, formative assessment, and reflection on practice (Curran & Goldrick, 2002). Individual programs are administered by any number of service providers throughout the state. The New Teacher Center at the University of California, Santa Cruz is one such support provider (Governor's Commission on Training America's Teachers, 2006). That specific program utilizes full-

time mentors with specific protocols and formative assessment over a two-year induction period. A study of new California teachers in 1999-2000 showed a 96% retention rate of new teachers in their first year and 94% in their second year (Curran & Goldrick, 2002). These researchers suggest that teachers experiencing this induction program were more effective than those who experienced mentoring alone.

Beginning in 1994, the Louisiana Teaching Assistance and Assessment Program (LTAAP) provides for the support of all new teachers in Louisiana (National Comprehensive Center for Teacher Quality, 2005). The program builds upon the Lafourche Parish Framework for Inducting, Retaining, and Supporting Teachers (FIRST), which includes elements of an early orientation, professional development opportunities, mentoring, model classrooms, and portfolio assessments (Louisiana Department of Education, 2006). The original model of one semester of mentoring and one semester of assessment was expanded in 2001 to a two-year model. A mentor meets with the new teacher regularly throughout the first two years of teaching to provide formative assessment, feedback, and support. This mentor is to serve as a coach, model teacher, and professional development specialist for the new teacher. The principal and an outside assessor manage the formal summative assessment in year two, making the final recommendation for licensure. Curran and Goldrick (2002) suggest an 88% retention rate of new teachers experiencing this induction model in one Louisiana district. Additional research (Bauer & LeBlanc, 2002) provides evidence that new teachers felt that participation in the program helped improve their teaching practice.

The Toledo Plan, a program first introduced in Toledo, Ohio in 1981 and later adopted in districts across the country, is a program of assessment and assistance typically organized by a local district's teacher union (National Comprehensive Center for Teacher Quality, 2005). Components include a five-day introductory orientation, mentoring, ongoing formative assessment, and a final evaluation. An intern or new teacher meets with a full-time consulting teacher or mentor early in the program to establish a plan of growth and support, based on the school district's Standards of Practice and Behavioral Performance Goals for teachers (Lawrence, 2006). Throughout the year, the two meet to discuss feedback gathered from observations and progress toward growth goals. The consulting teacher issues the final employment recommendation regarding the intern, and that recommendation is reviewed by an Internal Board of Review, comprised of teachers and administrators (Toledo Federation of Teachers, 2006). A positive impact on the retention of new teachers was noted in three areas where implemented (Curran & Goldrick, 2002). A Columbus, Ohio district witnessed retention rates as high as 98%. Rates in Seattle, Washington climbed from 50% to over 90% after implementation, and rates in Rochester, New York increased by 70%.

The Connecticut Beginning Educator Support and Training (BEST) model began in 1989 and includes local district-level support as well as seminars conducted by regional service centers to induct new teachers into the profession (Governor's Commission on Training America's Teachers, 2006). Mentors and mentor teams assist new teachers in gaining additional skills in management, instruction, and assessment. Regional service centers focus on specific content support through seminars and clinics,

which provide opportunities to explore instructional methodologies, reflect on practice, and share ideas with others. A portfolio-based assessment is begun in the second year, focusing attention on instructional practice. During a two-week unit of study, new teachers must provide evidence of planning, teaching, and student learning. New teachers are required to complete the entire program in a minimum of three years in order to be fully licensed in the state (Curran & Goldrick, 2002). Research suggests a retention rate of 94% of new teachers who experienced this model (Governor's Commission on Training America's Teachers, 2006). Individuals experiencing this model reported feeling more self-reflective and felt that they exhibited an improved quality of teaching and better interactions with their colleagues (Curran & Goldrick, 2002).

Virginia Induction Efforts

In Virginia, mentoring efforts began with the Beginning Teacher Assistance Program (BTAP) in 1985 (Virginia Department of Education, 2000a). This program was one of the first attempts in the state to provide new teachers with training to help ensure their success. Required as a component of professional licensure, successful completion of the program required participants to demonstrate proficiency on at least twelve of fourteen standards of teaching (Caldwell, 1986). Those who failed to do so were provided assistance before another formal assessment was conducted. The program ended in 1991. During this time, more attention was given to pre-service training of teachers and the cooperating teachers who would work with them. Suggestions were made to combine efforts of training cooperating teachers who work with pre-service teachers and mentor

teachers who would work with new teachers. Such coordinated training would ensure continuity between preparation and induction efforts.

In 1996, as a result of Virginia House Joint Resolution 629, the General Assembly of Virginia requested that the state Board of Education and the State Council of Higher Education develop a plan for providing a better system of new teacher induction (Virginia Department of Education, 1996). This plan called for the establishment of a statewide mentor program for newly hired teachers. Then in 1998, Virginia House Joint Resolution 117 requested that the Virginia Department of Education study the feasibility of implementing a statewide, one-year induction program for new teachers (Virginia Department of Education, 2000a).

Partly as a result of that study, the Virginia General Assembly appropriated $300,000 for the establishment of a mentor teacher program. In the following year, the Education Accountability and Quality Enhancement Act of 1999 was enacted requiring a mentor for every beginning teacher. Goals of this new act included retention of quality teachers, improved teaching performance, support for teacher morale and collegiality, and facilitation of a seamless transition into the first year of teaching. The act outlined school administrator responsibilities, including the duty to create a supportive school climate, release time for the new teacher and mentor to work collaboratively, and reduced work load or, at minimum, common planning time for the new teacher and mentor pair.

In 2000 the Virginia Evaluation Criteria for Teachers, Administrators, and Superintendents was issued and included the following list of items in its evaluation of principals (Virginia Department of Education, 2000b):

- "Selects, inducts, supports, evaluates, and retains quality instructional and support personnel."
- "Provides staff development programs consistent with program evaluation results and school instructional improvement plans."
- "Takes responsibility for and participates in a meaningful and continuous process of professional development that results in the enhancement of student learning" (pp. 18-19).

This focus on the areas of personnel management, including the induction of new teachers, and staff development establishes the principal as a critical player in the induction and development of new teachers. Each principal is held responsible for the care of these new recruits.

In more recent years, the focus of mentor or induction programs in the Commonwealth of Virginia has turned to programming offered through various organizations. Annual memos from the state Superintendent of Public Instruction suggests that districts utilize the resources of one of three recognized programs of teacher induction or create their own research-based program, which would satisfy criteria set forth by the state (J. DeMary, Superintendent's Memos, August 15, 2003, August 20, 2004, and August 5, 2005; B. Cannaday, Superintendent's Memo, August 4, 2006, and April 27, 2007; P. Wright, Superintendent's Memo, October 17, 2008). These memos call for the use of the Santa Cruz method, the ETS Pathwise method, or the Fairfax County Great Beginnings method.

The University of Santa Cruz New Teacher Center model is a two-year support program that coordinates the work of full-time mentors through the use of specific protocols and a formative assessment system. (Fallon, 2004; and Feiman-Nemser, 2003) Trained by specialized staff during approximately eight days spread over several months, these mentors enjoy weekly collaboration and professional development sessions. During the early phase of the work, new teachers, with the support of their mentors, complete a self-assessment tool based upon state teaching standards. The two then work collaboratively to develop an individual growth plan to focus future discussions and work (Feiman-Nemser, 2003). Throughout the year, the mentor observes the new teacher weekly and then meets afterward to discuss that observation, recognizing areas of strength as well as areas for continued growth based upon the individual plan created earlier in the year (Fallon, 2004). The two meet regularly as well to analyze student and teacher work samples: student work, teacher journal entries, and lesson plans. Martin (2008) suggests that the model has had a profound impact on the effectiveness and productivity of new teachers throughout the country. A study by Strong (2005) found that 94% of teachers participating in a Santa Cruz model remained in education after six years and 88% of those were still classroom teachers.

Building on research of the Educational Testing Services and presented in the work of Danielson (2007), the ETS Pathwise method offers programmed training based on their review of literature, job-task analyses, and field testing. The program was reviewed by professional educators and by educational organizations such as the National Council of Teachers of Mathematics and the National Council of Teachers of English

(Bowman & Giebelhaus, 2002). The resulting induction program delivers a system of support focused on direct observation and formal assessment of teaching performance. It focuses on four key areas: planning for instruction, creating learning environments, teaching, and professionalism. Mentors, who are also full-time teachers, are trained by ETS staff to deliver a program tailored to the specific strengths and needs of the individual new teacher. That program emphasizes a cycle of planning, teaching, reflecting, and application (Holbert & Raffel, 2006). Results of Bowman and Giebelhaus' study show that teachers working with a Pathwise-trained mentor showed evidence of more effective planning, more effective instruction, and greater levels of reflection. ETS Pathwise has also shown successful gains in retaining teachers. In a study of new teachers participating in a Pathwise induction program in New Jersey, 90% returned for a second year (Holbert & Raffel, 2006).

In the first year of the Fairfax Great Beginnings model, participants attend a six-day summer institute focused on managing the classroom, developing and organizing curriculum, setting high expectations, and establishing a supportive climate for student learning (Auten, Berry, Cochran, & Mullen, 2002; and Ballou, 2004). During the course of the school year, they attend monthly, two and one-half hour after-school meetings. These focus on communication with parents, differentiation, assessment, and similar topics of interest to the new teachers. In the second year, participants attend two full-day seminars in the summer and one after-school teaching seminar during the year. Training for mentors, who are also full-time teachers, is provided by principals and other district administrative staff (Smith, 2003). This training includes assessing new teacher needs,

analyzing mentoring style, supervision, conflict resolution, and teacher beliefs. These mentors visit the classrooms of their novice teacher partners to provide feedback on practice. Auten, Berry, Cochran, and Mullen (2002) state that new teachers report coming to the district specifically because of this induction program and that 90% of novice teachers in a study year returned for a second year. These same teachers reported feeling more effective as classroom teachers, after participating in the program. Findings from a multi-year study (Addison, Barry, & Nielsen, 2007) suggest further that new teachers experiencing the Great Beginnings program valued their professional development experiences and perceived that the program addressed their specific needs.

Principal's Role in Induction

Principal Leadership

The literature suggests that new teachers need effective principals (Brown & Wynn, 2007), who will build high-performing cultures within their buildings. Wageman (1997) suggests that the leader is critical to the success of any group. Choosing a leader with the right combination of skills is more important than simply having an identified leader. Both Darling-Hammond (2003) and Heller (2004) share this point of view as it relates to the role of the principal. Darling-Hammond suggests that schools need principals who are skilled in areas to improve the overall working conditions of all school staff and to build the necessary structures to ensure student achievement. However, it is not enough for principals to establish the norms and culture of the schools in which they serve, they must also actively advocate on behalf of novice teachers.

Drawing on other studies and his years of experience in the field of education, Heller (2004) suggests that the role of educational leader (in this instance principal) is more about building the capacity of the organization. It is not about the one individual who single-handedly brings about effective change in a school. Instead, the leader must know or learn how to support the group without being the one driving force that sustains the group. This is very much akin to Senge's (1990) conceptualization of team learning. The role of the leader is a very complex one, requiring the appropriate skills, knowledge, and dispositions.

These same sentiments are born out in the work of others. Persell and Cookson (1982) reviewed seventy-five previous research studies and compiled a list of nine principal characteristics:

1) demonstrating a commitment to academic goals
2) creating a climate of high expectations
3) functioning as an instructional leader
4) being a forceful and dynamic leader
5) consulting effectively with others
6) creating order and discipline
7) distributing resources
8) using time well
9) evaluating results (p. 22).

These characteristics are indicative of the literature regarding the role of the principal in setting the tone and culture of an entire building.

Several authors speak to the principal's role in developing a different school culture (including the need to support group development), when considering ways to improve retention and satisfaction of novice teachers. Portner (2001), Glickman (2002), Hargrove (2003), Gilbert (2005), Johnson (2004), Johnson & Kardos (2005), and Rutherford (2005) agree that school culture has a great deal to do with the induction and motivation of the novice teacher. They all suggest that teaching is not an isolated event. No teacher should feel forced to work in isolation from his or her colleagues. There must be some sort of collegial network, which values sharing, support, and dialogue. Induction provides such a network.

Principal's Roles and Duties in Supporting New Teachers

Darling-Hammond (1996) suggests that if students deserve to be taught by highly qualified teachers, then those teachers deserve to be supervised by highly qualified leaders. Brock and Grady (2001), Cain (1984), and Tellez (1992) highlight a link between strong administrative support and the level of satisfaction and success experienced by a new teacher. Farkas, Foleno, and Johnson (2000) report survey results from a study of nine hundred teachers with five or fewer years experience and find that 82% of them would choose strong leadership over higher wages. The role of the building-level principal in a program of teacher induction has a measured impact on the new teacher's satisfaction and thereby on retention.

The principal has a key role in establishing the culture and tone of the entire building (Brock, 1999; Brock & Grady, 1997; Brock & Grady, 2001; Fullan, 1991; Johnson, 2004; and Watkins, 2005). Fullan defines the principal's role in fostering strong

organizational conditions as including developing shared goals, encouraging collaborative work, and monitoring results. Watkins repeats the call for a strong learning community, stating that without it new teachers will continue to leave in larger numbers, directly impacting student achievement.

Sargent (2003) suggests that principals must address both the emotional and professional needs of novice teachers. Schools must provide teachers with a sense that their work is important and that they are connected to the larger school community. In so doing, these individuals are more likely to remain "vital, dynamic, and contributing members of the school community" (p. 47).

Cole (1993) interviewed four principals and conducted focus group interviews with twenty-three elementary and secondary school principals and vice-principals. As a result of these interviews, she identified six primary concerns related to the principal's role in supporting teachers:

1) balancing role as supporter with role as evaluator
2) fostering teacher development vs. intervening in critical moments
3) encouraging openness while respecting individuality
4) responding to the professional development needs of all teaching staff
5) working within bureaucratic structures
6) addressing new teachers' preparedness to teach.

Cole found that school culture and leadership style were critical factors in addressing many of the above concerns. She suggested that induction is part of a broader issue of school-wide professional development and that principals should work to

develop a school culture that supports risk taking. Induction should not be seen as an add-on or additional work for some members of the staff. It must be developed as an integral part of the whole plan. She voices the concern that principals are not provided appropriate levels of support and guidance in supporting induction in this manner and fears that the ideas for induction programs remain just that – ideas.

Despite the large amount of research pointing to the impact building-level leaders have on the culture of their schools, there is evidence to suggest that it does not occur as readily as one might hope (Jackson, 2008) and that principals may even become disconnected from their teachers (Jorgenson & Peal, 2008). It is difficult for principals to be available to the new teacher. The day-to-day demands of the their roles inhibit efforts to assist the novice teachers in the ways they wish. Deal and Chatman (1989) found that 75% of novice teachers in their sample learned by trial and error with little input from their principal, and 60% of them had no formal orientation to their new roles. The new teacher faces isolation, and learning to teach becomes mostly self-directed.

Research further suggests that the principal may not be able to serve as an instructional leader in the conventional sense and that others in the building may actually fill this void with regard to induction. Of the 163 elementary principals whom Howell (1981) interviewed, most spent 30% of their daily work time on matters of instructional leadership. Issues such as paperwork and returning calls took the majority of their time. Ashley (2008) and Mitchell (2008) found that, instead of citing the principals' support of induction efforts, new teachers reported the role of the mentor as a critical factor in their decision to return to teaching for another year.

Perceptions About the Principal's Role

Principals contribute to the overall climate in a building, providing the structure and expectations that ultimately drive student achievement. This support may be seen in a variety of forms: shared leadership, scheduling of the teacher's day, selection of mentors, observation and feedback, or visibility. Various authors highlight the key role the principal plays in establishing the culture within the building that supports induction. Research suggests that principals must be directly involved in and hold themselves primarily responsible for the process of inducting new teachers into the profession (Eckola, 2007; and LeQuier, 2008). Their actions and beliefs about their roles have a profound impact on the experiences of these novice professionals (Heintz, 2007; and Youngs, 2007).

However, Melton (2007) found that the relationship between the principal and new teacher is often impacted by the new teacher's perceptions of the principal's leadership, among other factors. Other researchers report similar findings. Andrews, Gilbert, and Martin (2007) and Gabrielsen (2008) suggest a discrepancy in what new teachers value in induction programs and what they perceive as having received from the principal. Likewise, Lambeth (2007) and Mitchell (2008) report that new teachers desire more frequent principal support. A number of related studies have investigated the levels of principal support and the degree to which new teacher and principal perceptions of roles agree (Brock & Grady, 1998; Carter, 1990; Golden, 2003; Gurule-Gonzales, 1995; Martin, 1997; Powell, 1992; and Siefert & Beck, 1981). While new teachers and

principals mostly agree regarding the types of support provided by the principal, they differ in their perceptions of the frequency of that support.

As a result of survey research conducted throughout the state of Nebraska, Carter (1990) suggests that principals and new teachers differ significantly in their perceptions regarding levels of induction support. Principals report offering more types of support than the new teachers perceive having received. While there were varied opinions regarding the types of support that should be provided, differences were found only in six of the twenty-seven reviewed areas. Principals found help from colleagues, visits from the principal, help from the principal and evaluation/supervision orientation to be the most important areas, while teachers suggested that meetings with the principal and help from colleagues would be most beneficial. Interestingly, the mainstays of many induction programs (new teacher orientation and early arrival to work location) were rated lowest by both groups.

Additionally, the principals reported a higher frequency of support than the teachers perceived having received. A significant difference regarding the frequency of support was found in thirteen of twenty-seven different areas or 48.1% of areas. It is worth noting that teachers reported receiving less support on twenty-six of the twenty-seven areas. The reason most often chosen by principals for not providing a type of support was that it was not necessary for the first-year teacher. Perhaps this denotes a disconnect between the principals' and teachers' thinking.

Carter suggests that the size of a district or school may have an impact on the levels of support provided to new teachers, both real and perceived. Those working in

larger districts may have access to training and/or central administration support that is not available to their colleagues in smaller districts. Larger districts may possess the funds to hire additional resource personnel to assist with the induction of new teachers. Those working in larger schools may find it necessary to delegate support of induction efforts to others within the building. New teachers in such larger districts or schools may, therefore, perceive the principal's role differently. (Table 10 lists the twenty-seven types of principal support researched by Carter. Percentages of responses by principals and new teachers are indicated. An asterisk indicates those areas which were found to be statistically significant.)

Table 10

Carter's Types of Principal Support

	Type of Support	Percentage Principal/Teacher Reporting
1.	teaching assignment in which new teacher is endorsed	96.2/96.2
2.	orientation for new teacher only	92.2/69.6*
3.	introduction to faculty before start of year	93.7/87.3
4.	reduced workload	7.9/3.8
5.	reduced class size	6.6/6.3
6.	fewer nonteaching responsibilities	37.2/26.6
7.	personal development plan	50.0/12.7*
8.	required early arrival before other teachers return	55.1/29.1*
9.	new teacher manual	23.4/19.0
10.	tuition/registration fees reimbursed during first year	15.4/20.3
11.	assigned a mentor	52.6/32.9*
12.	support team	30.8/8.9*
13.	instructional help; guidance and advice from colleagues	97.4/96.2
14.	help from mentor	57.7/36.7*
15.	college/university personnel help supervise new teacher	10.1/6.3
16.	instructional help, guidance, and advice from principal	97.5/93.7
17.	informal visits from the principal early in the year	97.5/87.3
18.	released time to observe other teachers, plan, etc.	58.2/40.5*
19.	in-class assistance (para-professional or volunteers)	54.4/54.4
20.	time to talk with other new teachers	73.4/36.7*
21.	personalized notes from the principal early in the year	82.3/54.4*
22.	assistance from support team	34.2/12.7*
23.	inservice programs	70.9/46.8*
24.	demonstration lessons from master teachers	31.6/17.7*
25.	orientation regarding supervision and evaluation	97.5/69.6*
26.	videotaping for review and feedback	1.3/1.3
27.	meetings between the new teacher and principal	94.9/86.1

Source: Carter, 1990.

In her case study of three elementary schools in one Oklahoma district, Martin (1997) investigated changes in a local teacher induction program by conducting material reviews, direct observations, and participant interviews. She found that staff other than

the principal served as the primary support providers for new teachers. Only one of the three principals was perceived to serve in that capacity as well. For the most part, principals merely completed the requirements as set forth by their local districts and states. There was a wide range of involvement on the part of the three principals in the study.

Martin suggests that additional studies should be conducted regarding the principal's role in new teacher induction. She expresses the concern that the three principals in her study had limited knowledge of this particular new program. Of primary interest to her would be to determine if the principal's role would change depending on whether the program were a voluntary or mandated one.

In reviewing the findings of this research, Martin claims that the principals served as leaders instead of managers and then goes on to state that only one principal served in that capacity. Additionally, she suggests that principals serve as change agents but states that they failed to serve as the primary change agents in the three studied schools. Instead, they worked with the parameters as set forth by their districts and allowed others to make the program actually work. Lastly, she labels these three leaders as "effective" but states in another part of her writing that they were typical rather than effective leaders. Martin's comments appear to be contradictory, making it difficult to determine if these principals were effective or not.

Brock and Grady (1998) conducted survey research focused on what principals and new teachers identified as key problems experienced by novice teachers and what new teachers needed versus what the principals actually provided. Their findings suggest

that the principal often overestimated his own role in new teacher induction. While principals stated that they supported the program, they did little of the actual work. Often the real work of the induction program fell to a mentor or some other recognized teacher-leader within the building. New teachers expressed a need for more direct principal interaction throughout the first full year of teaching, looking to the principal for support and guidance.

Both groups agreed that classroom management and discipline were the key problems for new teachers. While they differed on the rank order of other identified needs, both principals and new teachers included the following in their list of needs: dealing with stress, working with parents, the workload, planning, differentiation of instruction, and feelings of inadequacy. The novice teachers expressed a need for a larger principal role in the induction process. As born out in the literature, they requested clear expectations, frequent formative assessment, and better overall communication. They also wanted a more concentrated effort over a longer period of time. A beginning orientation and early year activities did not suffice to address their needs.

Golden (2003) conducted a survey of Connecticut elementary principals in one specific geographic area in order to determine what they were doing to implement best practices in new teacher induction. Included within those best practices were formal orientation, support of a peer mentor, formal observations and feedback, and meetings with the principal. While she found that teachers valued the support and input of the principal in establishing the building culture, the results of her study suggest that best practices are not being implemented in this particular region with any consistency.

Furthermore, the new teachers and principals do not agree regarding perceptions of the principal's role. While principals report possessing specific beliefs regarding induction and instruction more generally, the teachers report a lack of concrete examples one might expect as a result of such beliefs. Golden suggests that it could be a function of principals believing that certain actions are occurring but that they are not happening without the direct supervision of that building-level administrator.

In response to these concerns, Golden recommends that principals receive additional training and work to become more aware of ways to serve as leaders in the induction process, taking more direct involvement in the process as a whole. She suggests that further research in the area of principals' self perceptions as they relate to induction is needed. She also suggests that additional studies investigate limitations of the principals' abilities to serve in this capacity.

When reviewing this research, there is a concern with the reliability of the instrument Golden has created and, thus, the validity of her resulting data. While she conducted a pilot study of her instrument and had a team of professionals review the contents, she fails to provide information relating to the reliability of that instrument. Also, the return rate of the survey was originally 26%. Only after many attempts was she able to realize a return rate of 42%. Of the 180 surveys returned, only 75 were usable. This calls into question the validity of her findings.

Gurule-Gonzales (1995) surveyed 105 teachers and twenty principals in urban schools throughout the Los Angeles Unified School District and suggests that concerns about the principal's role in induction is more a question of frequency of support. In a

survey regarding their perceptions of the principals' support of new teachers, both teachers and principals agree on the types of support that the principal should provide. However, the principal tends to overestimate the amount of time and support provided to the novice teacher. When asked what they needed, over 20% of new teachers requested increased peer or mentor support. More than 18% asked for more opportunities for professional development, and more than 15% stated they wanted more principal support. Over 10% stated they wanted additional peer-group support. Interestingly, more than 18% of the new teachers indicated that they would not return after the first year. Reasons for their decisions included lack of support, stress, and lack of educational priorities.

In an ethnographic study of five schools in Maryland, Bohman (1988) investigated fifteen roles of school-based administrators in induction efforts (see Table 11). She found that formal efforts of induction could be categorized into three main areas: orientation, evaluation, and assistance. Noted as the most important attributes embedded within those various roles of the principal were setting expectations, being visible in the classrooms, frequent and specific feedback, in-class assistance (provided by or facilitated by the administrator), access to colleagues, and supportive demeanor (friendly, positive, open to questions).

In general, new teachers expressed the desire that the principal take a more active role in breaking down isolation in the building. Bohman suggests that it is the principal's role to foster an environment that is conducive to a collaborative and collegial school culture. New teachers also expressed a desire for more intense supervision and feedback. Bohman suggests that districts must do more to define the primary tasks of the principal

as staff developer and lead instructor – focusing his or her energy on the needs of the teaching staff and especially the new teachers.

Table 11

Bohman's Types of Induction Support

Support
1. Group orientation at the beginning of the year
2. Individual orientation at the beginning of the year
3. Assignment of buddy teachers or mentors
4. Arrangement of reduced load
5. Arrangement of released time to visit other classrooms
6. Assignment of an instructional aide or volunteer to beginning teachers' classrooms
7. Demonstrations or modeling of instructional or management techniques in beginning teachers' classrooms
8. Observation and conferencing with beginning teachers
9. Use of an individual professional development plan
10. Videotape analysis of beginning teacher classroom performance
11. Restriction of extra responsibilities
12. Workshops specifically designed for beginning teachers
13. Opportunities for beginning teachers to socialize with school staff
14. Opportunities to participate in "help" groups
15. Other – defined as coaching

Source: Bohman, 1988.

Bohman's efforts to ensure the validity and reliability of her findings are noteworthy. The interview protocol was reviewed by a panel of experts to judge the validity of the instrument. A trained researcher observed during pilot interviews. Subject schools were chosen specifically to represent the diversity of Maryland. Data were gathered through interviews of individuals as well as document review.

One additional study focused on the principal's support of new teacher induction programs from the perspective of the mentor teacher. This research corroborates the findings of the previous studies. Through questionnaire research regarding induction efforts in one Massachusetts district, Powell (1992) suggests that principals often perceive that they offer much more support than mentor teachers report receiving. Principals report supporting the concept of a mentoring program, but the mentor teachers did not view that support positively. Powell found that the principals reported themselves as effective leaders in many instances but that did not translate into an awareness of that same effectiveness on the part of the mentor teachers. These teachers did not see that the principal took a very active role in the program. Regarding what the principal did to contribute to the teaching experience, three of seventeen teachers responded that the principal did nothing; seven stated that he assigned the pairs; and two cited a lack of administrative support as a major source of frustration.

In reviewing Powell's study, it would have been helpful to have a more clearly articulated set of statistical findings. Often, information was reported without percentages to give one a sense of magnitude of those findings. Additionally, the findings and discussions were a mere report of the numbers without much meaning given to them; there was little interpretation for the reader. Lastly, the findings are presented with little connection to the literature review.

Researchers suggest the need for similar additional studies (Bohman, 1988; Carter, 1990; and Gurule-Gonzales, 1995). Carter suggests that studies should be conducted to monitor changes and/or progress towards narrowing the gaps between

principal and new teacher perceptions. Gurule-Gonzales suggests that additional work is needed to determine if results are generalizable to other areas of the state and nation. He suggests that it would be advisable to replicate the study in other areas with different demographics. Bohman suggests that additional studies are needed to understand better the various roles individuals play in new teacher induction. Current research in this area could provide meaningful input to several of these questions.

Methodology

Studies conducted on perceptions of the principal's role in teacher induction include both qualitative and quantitative methodologies. The majority of those seeking information from a broader audience use survey research approaches (Carter, 1990; Brock and Grady, 1998; Gurule-Gonzales, 1995; Horn, Sterling, & Subham, 2002; Golden, 2003); while authors investigating smaller populations use qualitative methods (Bohman, 1988; Martin, 1997; Powell, 1992; Wischkaemper, 2005). The majority of these latter studies focus on a few schools within a district, on a smaller region within a state, or on a few schools throughout the state. No study was found using qualitative methodologies in a statewide study.

Jolley and Mitchell (2004) suggest that quantitative survey research is an appropriate way to identify perceptions, attitudes, and opinions of a larger audience. Several of the authors previously mentioned discuss generalizability as one factor that led them to choose quantitative methods. It was important to them to determine characteristics that could be used to describe a broader segment of the population. For example, Horn, Sterling, and Subham (2002) replicated an earlier study by Rowland,

Sterling, and Wong (1999) in order to generalize more widely to the population in Arizona. Bohman (1988) discusses the fact that her qualitative study could not be generalized to a larger population and that the findings are limited to a description of the five schools in her study.

Jolley and Mitchell (2004) also suggest that telephone interviews are appropriate to gather the perceptions, opinions, and attitudes of individuals on a case-by-case basis. The study, upon which this work is largely based, used a mixed-methods approach. Gurule-Gonzalez (1995) conducted follow-up interviews in an effort to confirm the findings from his survey. Additionally, he hoped to explore more deeply the perceptions regarding principals' mechanisms of support held by new teachers and principals in the Los Angeles Unified School District.

Summary

The literature suggests that induction is a viable way to address the needs of new teachers and to retain quality teachers. Whether addressing the perceptions of a lack of support or lack of socialization that exist in schools across the nation, quality induction provides increased retention of teaching staff and an overall improvement in the quality of instructional personnel. Induction models include the forms of pre-service, in-service, and job-embedded professional development and cover a wide range of suggested methods of support.

Regionally, it is difficult to define induction. Various states and districts use the term to describe vastly different scenarios. Programs around the country range from buddy systems to highly evolved systems of deliberate, sustained efforts to introduce new

teachers into their chosen field. At the same time, variability in the funding of induction programs deepens the difficulty in defining a quality program.

Virginia induction efforts first began in 1985 with the Beginning Teacher Assistance Program. However, it was not until 1999 and the Education Accountability and Quality Enhancement Act that Virginia required a mentor for each new teacher. Today, the Virginia Department of Education advocates the use of one of three programs of induction (Santa Cruz, ETS Pathwise, and Fairfax Great Beginnings) or a locally developed, research-based model.

The principal has a distinct part in ensuring that quality induction occurs in the building. By fostering a culture that encourages collaboration and collegiality, the principal sets the tone that instruction is the critical factor in student achievement. New teachers and principals agree on many of the principal's roles. However, the literature suggests that they have widely different perceptions regarding the frequency or level of support that actually occurs in their buildings.

Definition of Terms

Induction – Breaux (2003) defines induction as "a highly structured, systematic means of training and supporting new teachers beginning before their first day of teaching and continuing throughout their first two or three years" (p. xi).

Mentor – a more veteran professional selected to support the needs of a new teacher. In the Commonwealth of Virginia, a mentor must have taught a minimum of three previous years and must be located in the same school as the new teacher. Programs of mentoring are sometimes confused with programs of induction.

New Teacher – an individual who has taught for less than one academic year; also called beginning teacher. This individual holds a provisional, collegiate professional, or postgraduate professional teaching license in the Commonwealth of Virginia. The new teacher may have completed either a standard preparation program or an alternative preparation program through an accredited college or university.

Perception – the attitudes or opinions held by an individual, based upon direct observation or one's belief system

Principal – a building-level chief administrator.

Professional Development – any activity in which one engages for the purposes of enhancing knowledge and skills related to one's chosen profession

Retention – in the context of this study, new teachers who return to the profession each subsequent year

CHAPTER 3

METHODOLOGY

The purpose of this chapter is to describe the manner in which this study was conducted. The chapter is divided into seven sections: Methodology, Research Design, Subject Selection, Data Collection Procedures, Data Analysis, Delimitations, and Summary. Subjects for this study were first-year elementary school teachers and their principals throughout the Commonwealth of Virginia. Using non-experimental survey and telephone interview methodology, this descriptive study sought to answer three research questions:

1. Do teachers' perceptions differ from principals' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction?
2. Is there a difference in teachers' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction, according to the type of induction program and the reported level of teacher training?
3. Is there a difference in principals' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction, according to the type of induction program and the reported level of principal training?

Methodology

Based upon a review of the current literature regarding the principal's role in programs of new teacher induction, both quantitative and qualitative research methods have been used to investigate this topic. Extant studies that sought to gather information from a larger population are more often quantitative in nature. Survey research is considered an appropriate design to identify perceptions, attitudes, and opinions of a larger audience and to generate findings, which can be generalized to a broader population (Jolley & Mitchell, 2004). Carter's (1990) survey of Nebraska teachers and principals, Brock and Grady's (1998) work with the same population, Gurule-Gonzales' (1995) work in the Los Angeles Unified School District, Farkas, Foleno, and Johnson's (2000) study of more than 900 new teachers, Horn, Sterling, and Subham's (2002) study in Arizona, and Golden's (2003) study in two larger regions of Connecticut all serve as examples of survey research applied to the area of new teacher induction.

Extant studies that sought to gather information from smaller groups often employ some type of interview process. Telephone interviews are appropriate to gather the perceptions, opinions, and attitudes of individuals on a case-by-case basis (Jolley & Mitchell, 2004). Bohman (1988) utilized interviews as part of her ethnographic study in five schools in Maryland to gather findings regarding the roles of school-based administrators in induction efforts. Martin (1997) conducted participant interviews in her case study of three elementary schools in one Oklahoma district. Powell (1992) researched the mentor's perception of principal support of new teacher induction in one Massachusetts district. Wischkaemper (2005) conducted her interview-based research in

one school district in a southwestern state to glean information regarding the principal's role in new teacher induction.

Research Design

Survey Instruments

This study utilized a non-experimental, comparative research design. The focus of this investigation closely resembled the scope of the work Gurule-Gonzales (1995) completed in the Los Angeles Unified School District, in that both examined the perceptions of new teachers and the principals who support them. To gather data for analysis, Gurule-Gonzales created two survey instruments based on the extant literature (Gurule-Gonzales' original list of literature supporting each survey item can be found in Appendix E). In the first section of the principal and new teacher instruments, there were thirty-nine items focused on the principal's support of new teachers. The items addressed allocation of resources, support of mentoring programs, personal interaction and support of the new teacher, and support of professional development efforts. These items were divided into two sub-categories of staff development support and peer-coaching support. Respondents were asked to rank the frequency and importance of the various roles principals play in supporting new teachers. Section two of those same instruments gathered demographic data regarding the new teachers and principals.

Gurule-Gonzales found that principals and teachers agreed on the types of roles the principal should play in supporting new teachers. However, their perceptions differed regarding the amount of time the principal spends engaged in those activities. He suggested the need for additional studies in other localities and in broader contexts to

determine the existence of similar disparities in the perceptions of the two groups. With these goals in mind, permission was obtained to adapt his survey instrument for this study.

Both a principal and a new teacher version of a survey about induction were adapted from Gurule-Gonzles' instruments and then administered online using *Inquisite* (2006), a computer-based software program. Differing from Gurule-Gonzales' instruments, each survey in this study targeted four main scales– administrative support, professional development, mentoring support, and collegiality. These scales were theoretically constructed, as opposed to statistically founded, based on the similarity of topical information contained within each instrument item (Cronbach, 1951) and as reflected in the literature on principal support (Collins, Deist, & Riethmeier, 2009; Pinkston, 2008; Rowland, Sterling, & Wong, 1999; and Sargent, 2003).

Further adaptations of Gurule-Gonzales' original instrument included replacing the term "peer coach" with the construct of "mentor" in this current study, to avoid any confusion in terminology. The term mentor is used more often throughout Virginia and in the legislative and educational literature of state agencies (Virginia Department of Education, 2000a). A reading of Gurule-Gonzales' review of the literature suggested he used the term "peer coach" to mean the same as "mentor". Lastly, demographic questions contained in section two of both instruments were adapted to reflect the focus of this investigation. The instruments questioned the type of program, the level of training, and the principal's experience in using the specific induction program.

The first section of both instruments included Gurule-Gonzales' thirty-nine original statements, which were divided into the four scales of support for the purposes of this study. The area of administrative support (items 1 – 12) targeted the principal's communication of a common vision and philosophy of education, feedback on performance, support of policies, and provision of resources and materials. Survey items that focused on support roles related to professional development (items 13 – 20) addressed release time for new teachers to observe others, resources for professional growth, encouragement of ongoing learning, and specific training geared to the needs of new teachers. Questions related to mentoring support (items 21 – 35) included the selection of mentors, their training, and communication of the purposes of mentoring. To gain an understanding of the context in which new teachers worked, the survey included items about collegiality (items 36 – 39) such as questions about practices that facilitate the new teacher's inclusion in the school team and recognition of the new teacher's need for a nurturing, inclusive environment.

Survey items contained in the first section of each instrument were worded similarly for both groups except that the term "your principal" in the teacher instrument was changed to "I" in the principal instrument. Subjects used a Likert-type scale to select their responses. The importance of the principal's support was rated as Extremely (5), Rather (4), Somewhat (3), Hardly (2), or Not at all (1). The frequency of that support was rated as Always (5), Frequently (4), Occasionally (3), Seldom (2), or Not at all (1).

Section 2 of the teacher and principal surveys requested demographic information regarding the individual and the school. The teacher and principal surveys included

questions regarding gender, age, ethnicity, highest degree earned, and field of study (see Table 12). The teacher survey contained an additional question regarding the individual's path to licensure – traditional or alternative preparation. The principal survey included additional questions regarding years of experience, location of that experience, and other positions held. Additional items related to demographics of the school and district were included in the principal survey. Those demographic data included school setting, enrollment, ethnic diversity, socio-economic status, size of teaching staff, and number of new teachers.

Table 12

Individual and School Demographic Questions on Survey Instrument

Teacher Survey Individual Questions	**Principal Survey Individual Questions**	**Principal Survey School Demographics**
Gender	Gender	Setting
Age	Age	Student enrollment
Ethnicity	Ethnicity	Diversity
Highest degree earned	Highest degree earned	Socio-economic status
Type of induction program utilized in the building	Type of induction program utilized in the building	Size of teaching staff
Amount of training	Amount of training	Number of new teachers
Licensure process	Years of experience prior to becoming a principal	
	Years of experience as a principal (and at current site)	
	Principal of other sites	
	Other positions held prior to becoming a principal	

Survey demographic data identified the type of induction program used in the school or district and the level of training provided to staff – both instructional and administrative. Choices included the three previously identified programs of ETS Pathwise, Great Beginnings, or Santa Cruz. In some instances, participants may not have known the precise title of the program that served as the foundation for their own district's induction program. Therefore, each program was described in a short paragraph

to assist them in matching a program title to what occurred in their own school. In the event participants did not feel the descriptors matched their own program, respondents were provided the option of "Other". Space was provided for them to describe their program more fully.

Telephone Interview Protocol

Because the number of subjects responding to the initial survey was lower than anticipated (Principal = 13.1%, $n = 77$; New Teacher = 25.8%, $n = 16$), a decision was made to follow-up on the information gathered in that survey and to confirm the findings via a telephone interview (see Appendix F). Gurule-Gonzales' original study also included follow-up interviews as a portion of the overall research plan. The interview protocol in this study was developed using the four scales of the survey instrument as a foundation. Individuals were presented with questions related to administrative support, professional development, mentoring support, and collegiality. In each of the four areas, individuals were asked to identify the three most helpful support strategies that the principal used in new teacher induction. Prompts, modified from the wording of the individual survey items, were provided.

Next, participants were asked to rate how helpful each of the three strategies were. To accomplish this, they were provided three choices: extremely, mostly, or somewhat. These three choices were chosen because of their alignment with the original survey Likert-type scale for importance: extremely, rather, somewhat, hardly, or not at all. Because participants had already indicated that the three named strategies were the "most helpful", the choices of hardly and not at all were not used.

In like manner, participants were asked to rate how frequently each of the three strategies were engaged. They were provided four choices: frequently, occasionally, seldom, or not at all. These four choices were chosen because of their alignment with the original survey Likert-type scale for frequency: always, frequently, occasionally, seldom, or not at all. Because original survey findings suggested that most responses were provided in the range of frequently, occasionally and seldom, the choice of always was eliminated.

Participants were then asked a number of demographic and open-ended questions. Demographic data included gender, age, type of induction program used in the school/district, and amount of training in that program. Additional questions of the principal gathered data regarding the frequency of use of the model, years of experience as a principal, size of teaching staff, number of new teachers, and socio-economic status of the school. Open-ended questions were posed to allow participants an opportunity to provide additional information they wished to give and to gather clarifying information regarding participants' responses to the structured items.

Subject Selection

Data from the National Council for Education Statistics *2007-2008 Schools and Staffing Survey* (Keigher, 2009) suggested the average American elementary school had 477 students, of whom 55.8% were White, 16.2% were African-American or Black, 22.1% were Hispanic, and 4.5% were Asian or Pacific Islander. Students meeting qualifications for Free or Reduced Lunch represented 30.4% of the total student population.

From the same source (Battle, 2009), data from the same period regarding elementary school principals (see Table 13) showed that 41.1% were male and 58.9% were female, with a racial makeup of 79.5% White, 10.9% African-American or Black, 7.6% Hispanic, and 2.1% Asian or Pacific Islander. Data regarding age suggested that the average age of principals was 49. Of elementary school principals, 61.3% held a master's degree, and 37.4% held a degree or certificate beyond the master's level. On average, these principals had served 7.7 years as a principal, with 4.3 years within the current building. Data from the *2003-2004 Schools and Staffing Survey* (Lyter, Orlofsky, Pittsonberger, Riordan, and Strizek, 2006) suggested that principals came to that position after serving in a number of previous roles: 66.6% were assistant principals, 41.4% were department chairs, 24.9% were curriculum specialists or coordinators, and 6.9% were guidance counselors.

Elementary school teachers represented a similar diversity (Coopersmith, 2009). The majority were women (84.8%), and their average age was about 44. The racial makeup of these teachers was 82.7% White, 7.1% African-American or Black, 7.5% Hispanic, and 1.4% Asian or Pacific Islander. While 48.4% had earned a bachelor's degree, 44.3% held a master's degree, and 7.1% had completed coursework beyond the master's level.

Table 13

Characteristics of the National Principal and Teaching Population 2008

Characteristic	Principal (%)	Teacher (All) (%)
Male	41.1	15.2
Female	58.9	84.8
Average Age:	49.0 years	44.4 years
White	79.5	82.7
African-American/Black	10.9	87.1
Hispanic	7.6	7.5
Asian/Pacific Islander	2.1	1.4
Bachelor Degree	1.2	48.4
Master Degree	61.3	44.3
Post-Master's Education	37.4	7.1

Source: Battle, 2009; and Coopersmith, 2009.

Principal Survey Participants

A census of all K-5 elementary schools in the Commonwealth of Virginia was conducted. The original population of Virginia elementary schools numbered 1,166 at the time of the survey administration. Of those, 332 were not included because selection criteria for this study limited participation to those schools identified as serving students in grades kindergarten through fifth grade, as this was the typical elementary school population. Two additional schools were not included because email addresses for their principals were not available, and the elementary school, where the researcher was a principal, was not used. Principals of those 831 schools were invited to complete an online survey. (An invitation to participate in the survey is included in Appendix D.) After the initial invitation, another 184 schools were excluded due to local district policies regarding external research activities. Lastly, 64 schools were not available for

the study because the principal's email contact information was inaccurate or the email was not deliverable in a readable format. The resulting number of elementary schools and their principals available to participate in the study was 586. Of that number, 77 (or 13.1%) responded to the survey.

Based upon the original research protocol, only responses from those principals with three or more years of experience and more than one year in the current elementary school were to be considered. Of the seventy-seven respondents, thirteen identified themselves as first, second, or third year principals, and another three identified themselves as serving in the current location for less than one year. Because of the lower than expected participation, the decision was made to include these individuals.

Principal responses to demographic questions were compared to national averages (Battle, 2009). Data regarding chronological age were relatively similar with more than 76.0% of respondents reporting their age between 40 and 59, as compared to the national average age of 49. Information gathered regarding gender, race, and education differed more widely (see Table 14). The study group contained more women than the national average – 75.3% of respondents compared to 58.9% in the nation. While about 80.0% of both groups identified themselves as White, the number of African-American/Black principals in this study was slightly higher than the national average: 15.6% as compared to 10.9%. The percentage of those identifying their heritage from other ethnic groups was higher in national averages: 9.7% compared to 2.6% in this study. Lastly, a review of highest degree earned shows a larger number of principals holding master's degrees in the study group: 83.1% compared to 61.3% nationally. In contrast, fewer members of the

study group hold degrees beyond the master's level (15.6% compared to 37.4% nationally).

Table 14

Demographics of National and Virginia Elementary Principal Respondents

Characteristic	Nation (%)	VA Survey Respondents (%)
Male	56.0	24.7
Female	44.0	75.3
Average Age: 40 – 59	49 years	76.0
White	89.5	81.8
African-American/Black	10.9	15.6
Hispanic	7.6	1.3
Asian/Pacific Islander	2.1	1.3 (unspecified)
Bachelor Degree	1.2	0.0
Master Degree	61.3	83.1
Post-Master's Education	37.4	15.6 (doctorate; 1 unspecified)

Source: Battle, 2009.

Additional demographic characteristics of the principal subjects were also obtained (see Table 15). When asked about their experience as a principal, 40.8% of respondents reported that they had five or fewer years of experience, 32.9% had six to ten years, 19.7% had eleven to twenty years, and 6.6% had more than twenty years of experience. The national average was 7.9 years of experience (Battle, 2009). Of those responding to the item regarding years of experience at the current site, 60.6% had one to five years, 32.4% had six to ten years, and 7.0% had eleven to fifteen years of experience in the current assignment. The national group of principals had spent 4.3 years at the current site (Battle, 2009). Of those serving as principals outside the current school,

29.9% served in the same district, 13.0% served in a different public school district in the same state, 5.2% served in a different public school district outside the state, and 1.3% served in a private school. When asked about roles, other than teaching, in which they had served, subjects responded accordingly (see Table 16): 50.6% had served as department or grade level chair, 85.7% as assistant principal, 5.2 % as guidance counselor, 1.3% as library media specialist, 16.9% as curriculum specialist or coordinator, and 16.9% as some other district level specialist. When asked about prior elementary or secondary teaching experience (see Table 17), 35.5% had taught between one and ten years, 23.7% had taught eleven to fifteen years, 21.1% had taught sixteen to twenty years, and 19.7% had taught more than 20 years.

Table 15

Demographic Characteristics of Principal Experience

Years	**Experience as Principal % (*n*)**	**At Current Site % (*n*)**
1-5	40.8 (31)	60.6 (42)
6-10	32.9 (25)	32.4 (23)
11 or more	26.3 (20)	7.0 (5)

Table 16

Roles Served Prior to Becoming a Principal

Role Served	%	*n*
Department/grade level chair	50.6	39
Assistant principal	85.7	66
Guidance counselor	5.2	4
Library/media specialist	1.3	1
Curriculum Specialist	16.9	13
Other district level specialist	16.9	13

Note. An individual could select more than one role. Thus, the total will not equal 100%.

Table 17

Years Teaching Prior to Becoming a Principal

Years Teaching	%	*n*
1 – 10 years	35.5	27
11-15 years	23.7	18
16 – 20 years	21.1	16
More than 20 years	19.7	15

New Teacher Survey Participants

Principals were asked to provide email addresses for new teachers in their buildings, so that they could be contacted directly regarding participation in the survey. That information was used for follow-up correspondence and tracking of survey completion. Principals did not know which new teachers had completed the survey or the responses to survey items. New teachers, also called beginning teachers, were those individuals who had completed less than one full year of teaching and who met minimum licensure requirements as prescribed by Virginia standards and who held a provisional or collegiate professional certification. For the purposes of this study, new teachers may

have completed their training within a traditional teacher preparation program or through an alternative preparation process. Sixty-two new teacher email contacts were provided. Of that number, 16 (or 25.8%) responded.

As with principal responses, new teacher subject responses (see Table 18) were compared to national teacher averages (Coopersmith, 2009). The study group had slightly more female participants than the national average: 87.5% as compared to 84.8%. Demographics of race differ as well in that the study group was more homogenous than the national average, with 87.5% White, 6.3% African-American/Black, and 6.3% unspecified. Lastly, data regarding highest degree earned showed an increased percentage of study participants with master's degrees, with 62.5% of new teacher respondents having earned a master's degree as compared with 44.3% of the national average.

Table 18

Demographics of National and Virginia New Teacher Respondents

Characteristic	**Nation (All Grades) (%)**	**VA Survey Respondents (%)**
Male	15.2	12.5
Female	84.8	87.5
White	82.7	87.5
African-American/Black	7.1	6.3
Hispanic	7.5	6.3 (unspecified)
Asian/Pacific Islander	1.4	0.0
Bachelor Degree	48.4	37.5
Master Degree	44.3	62.5
Post-Master's Education	7.1	0.0

Source: Coopersmith, 2009.

New teachers also responded to additional demographic questions. First, they were asked about the licensure process (traditional or alternate) they had pursued to become a teacher. Three-fourths of respondents participated in a traditional licensure process, while the remaining 25.0% participated in an alternative process. Alternate licensure pathways included career-switcher models and provisional state licensure, among others. Those individuals participating in alternative preparation programs in Virginia were required to complete fewer course credits than their traditional path colleagues. They also engaged in fewer practical experiences. The overall length of the program could have been as little as one to three semesters, compared to the two to four year programs required in more traditional programs.

Telephone Interview Participants

In an effort to confirm the findings of the survey, four pairs of principals and new teachers were chosen purposefully to represent the categories of new teacher induction programs: ETS Pathwise, Great Beginnings, Santa Cruz, and locally developed. Requests were made of individuals familiar to this researcher to identify Virginia elementary schools in which each of the induction programs were utilized and to provide contact information for the principal of that school. The principal received an email invitation to participate and was asked to provide contact information for one new teacher. These principals may or may not have responded to the original Internet survey. Both principals and new teachers were invited in the spring and summer of 2009 to participate in the telephone interview (see Appendix F) regarding their perceptions of the importance and frequency of the principal's support of new teacher induction. Demographic

characteristics of the new teachers and principals were rather similar, while characteristics of the schools in which they serve were more varied.

Principal participants had similar leadership experience, each having served five or six years as a principal (see Table 19). All but one (Great Beginnings) had served as a principal only in the current building. Both genders were represented equally. Principals' ages ranged from the thirties (locally developed) to sixty (Great Beginnings), with two principals in their forties (ETS Pathwise and Santa Cruz). Two had received several days of training in the given induction program (Great Beginnings and Santa Cruz), while the other two had received one day of training (ETS Pathwise) or written information only (locally developed). Three of the four had used the program frequently, while the fourth had not used it much prior to the current year (Santa Cruz).

Table 19

Demographics of Principal Telephone Interview Respondents

Characteristic	**Principal Interview Respondents**	
	(%)	***n***
Male	50.0	2
Female	50.0	2
Age: (30-39)	25.0	1
(40-49)	50.0	2
(50 and above)	25.0	1
Exp: (1-5 years)	67.0	3
(6-10 years)	33.0	1
(11 or more)	0.0	0

These principals served in diverse schools. Two served in an urban setting, one with approximately 10.0% of the students qualifying for Free and/or Reduced Meals

(FARM) (Great Beginnings) and the other with approximately 56.0% of their students qualifying for the same (locally developed). A third principal served in a rural school with about 75.0% of students qualifying for FARM (ETS Pathwise). The fourth principal's school was designated as suburban with 55.0% of students qualifying for FARM (Santa Cruz). In three of the four schools approximately 3.0% to 5.0% of their teachers were new teachers (only 1 new teacher this year). In the fourth school (Great Beginnings) approximately 10.0% of their staff or four total teachers were new this year.

The demographic characteristics of the new teachers were also similar (see Table 20). All four were in their twenties. Two of the four were finishing a full first year (Great Beginnings and Santa Cruz), while the other two were hired after the start of the past academic year (ETS Pathwise and locally developed). These latter two received several days of training, while their colleagues had received no training (Great Beginnings) or one day of training (Santa Cruz).

Table 20

Demographics of New Teacher Telephone Interview Respondents

Characteristic	**New Teacher Interview Respondents**	
	(%)	***n***
Male	0.0	0
Female	100.0	4
Exp: (full 1st year)	50.0	2
(less than full 1st year)	50.0	2

Data Collection Procedures

Gurule-Gonzales (1995) first used his survey instrument to measure perceptions of the principal's support of new teachers with 105 teachers and twenty principals in schools of the Los Angeles Unified School District. The twenty urban elementary schools were described as having a lower than average socio-economic status and enrollments of approximately 1,200 students each. Teacher attrition rates were above average in these schools; about 40.0% of the teachers were in their first or second year of practice. The paper-based instrument was administered on site to ensure a higher return rate and follow-up interviews were conducted to glean additional information as needed from respondents.

To address validity, Gurule-Gonzales provided a table of literature citations to give credence for each of the survey items (see Appendix E). He does not mention having had a panel of professionals review his instrument. A pilot test of the instrument was conducted, which aided in addressing both validity and reliability. He provided little additional information regarding the reliability of the instrument.

Panel Review and Pilot study

Due to the nature of the online administration of the instruments in this study, differing from the face-to-face administration in Gurule-Gonzales' study, it was important to ensure that directions were clear and that the software and process functioned properly before administering the surveys. Both the principal and teacher instruments were reviewed by a panel of education professionals. A team of three principals, three new teachers, and three college professors provided feedback regarding

the construction of the instruments and online administration of the surveys. Appropriate changes were made to the instruments and/or administration process, as a result of this feedback.

As suggested by Jolley and Mitchell (2004), the Internet-based survey instrument was piloted in April and May 2008 to gather additional information regarding its reliability and validity. The subjects for this pilot were new teachers and principals in several elementary schools in Virginia. A caveat was included asking respondents not to discuss the survey with colleagues in their district or other districts around the state as others would be taking the survey at some point subsequent to their review. This assisted in limiting subject bias during the final administration of the survey, in that Internet survey respondents did not have prior knowledge of the study. Participants in this pilot study were asked to provide feedback regarding the instrument and its administration. Feedback from participants suggested the need for only minor revisions in wording or corrections in spelling.

The telephone interview protocol was subjected to panel review as well. Panel members were asked to suggest changes in both the administration of the instrument as well as the instrument itself. Suggestions for changes in the wording of the questions as well as the scale ranges were incorporated into the final protocol. Additional changes regarding notation of notification of the research subject information form and agreement to participate were also made.

Instrument Reliability

Several steps were taken to ensure the reliability of the new teacher and principal surveys. To reduce measurement error, respondents chose from a limited number of responses in order to express their opinions (Ritter and Sue, 2007). The use of Likert-type scale item responses limited the opportunity for scorer bias. The administration of the instrument had been standardized as much as possible to ensure similar testing conditions across environments (Axxin and Pearce, 2006). Providing the same instructions to all participants and offering one format of a survey facilitated via the Internet provided a standard procedure for all participants.

In this current study, analyses of reliability of the four scales (administrative support, professional development, mentoring support, and collegiality – see Appendix H) were conducted on the returned surveys to examine the internal consistency of the instruments (Jolley and Mitchell, 2004). Data included in Appendix H and tables 21 through 24 represent the correlation of each individual item to other items contained within the same scale. In this case, the scales were theoretically constructed around the nature of information contained within each item (Cronbach, 1951) and as reflected in the literature on principal support (Collins, Deist, & Riethmeier, 2009; Pinkston, 2008; Rowland, Sterling, & Wong, 1999; and Sargent, 2003).

Cronbach's alpha was computed for each scale by examining participant responses related to their perceptions of the importance and frequency of items contained within the individual scales. Table 21 provides the results of analyses conducted regarding administrative support. The overall Cronbach's alpha is reported between .81

for principal importance and .91 for new teacher frequency, indicating a moderately low rate of reliability. The individual item results range from a low correlation of .780 to .903 on the upper end. Table 22 provides the results of analyses conducted regarding professional development. The overall Cronbach's alpha is reported between .76 for principal frequency and .87 for new teacher importance, indicating a lower rate of reliability. The individual item results range from a low correlation of .719 to .869 on the upper end. Table 23 provides the results of analyses conducted regarding mentoring support. The overall Cronbach's alpha is reported between .88 for principal importance and .97 for new teacher importance and frequency, indicating a fairly high rate of reliability. The individual item results range from a low correlation of .871 to .977 on the upper end. Table 24 provides the results of analyses conducted regarding collegiality. The overall Cronbach's alpha is reported between .55 for principal importance and .95 for new teacher importance, indicating a much more variable rate of reliability than any of the other three scales. The individual item results range from a low correlation of .408 to .968 on the upper end.

Table 21

Administrative Support Scale Summary

Source of Support	Principal Importance	Principal Frequency	New Teacher Importance	New Teacher Frequency
communicates a common vision for the school	.803	.836	.886	.895
encourages participation in staff development and inservice programs	.795	.835	.875	.900
promotes staff development	.791	.830	.878	.893
emphasizes a philosophy of teaching and learning	.797	.839	.874	.900
nurtures new teachers and encourages professional growth	.797	.827	.874	.889
visits new teachers' classrooms	.803	.832	.863	.895
provides useful feedback on teaching performances	.786	.815	.882	.897
provides support on policies	.800	.829	.866	.897
provides current information on legal school issues	.780	.834	.864	.905
provides adequate resources and materials	.799	.837	.874	.903
encourages new teachers to read professional journals and research	.794	.821	.870	.891
provides professional journals and current educational articles	.811	.839	.879	.902
Scale Reliability (Cronbach's alpha)	.81	.84	.88	.91

Table 22

Professional Development Scale Summary

Source of Support	Principal Importance	Principal Frequency	New Teacher Importance	New Teacher Frequency
provides release time to attend professional training	.803	.753	.849	.811
provides funds for professional development	.809	.725	.843	.859
encourages new teachers to pursue professional improvement through college course work and commercial workshops	.795	.737	.824	.809
encourages support for new teachers from outside agencies	.793	.751	.845	.843
provides specific staff development training programs for new teachers	.813	.747	.869	.851
believes and demonstrates that staff development is essential for new teachers professional growth	.789	.724	.850	.829
gives compliments on teaching performance to new teachers	.816	.756	.862	.839
believes and emphasizes that staff development contributes greatly to the success of new teachers	.785	.719	.850	.824
Scale Reliability (Cronbach's alpha)	.82	.76	.87	.85

Table 23

Mentoring Support Scale Summary

Source of Support	Principal Importance	Principal Frequency	New Teacher Importance	New Teacher Frequency
promotes mentoring for new teachers	.883	.897	.974	.972
organizes the pairing of new teachers with an appropriate mentor	.880	.900	.977	.974
meets with mentors and new teachers jointly, to discuss issues of concern	.874	.893	.971	.969
encourages mentors to establish networks for new teachers	.874	.888	.971	.969
encourages mentors to demonstrate lessons to new teachers	.873	.890	.972	.969
provides release time for new teachers to observe demonstration lessons	.877	.898	.974	.971
provides training for mentors	.876	.897	.975	.971
encourages mentors to locate materials for new teachers	.871	.886	.971	.968
encourages mentors to stress time/student management to new teachers	.872	.886	.972	.971
provides mentors with instructional strategies to use with new teachers	.875	.888	.972	.968
encourages mentors to show genuine actions of sharing and caring to new teachers	.873	.890	.974	.969
encourages mentors to help new teachers grow professionally	.878	.888	.972	.969
encourages mentors to recognize new teachers teaching performance	.874	.885	.973	.970
encourages mentors to give feedback to new teachers on teaching performance	.878	.892	.973	.970
believes that mentoring contributes greatly to the success of new teachers	.879	.895	.975	.969
Scale Reliability (Cronbach's alpha)	.88	.90	.97	.97

Table 24

Collegiality Scale Summary

Source of Support	Principal Importance	Principal Frequency	New Teacher Importance	New Teacher Frequency
includes new teachers in school related activities	.456	.678	.920	.919
tries to make new teachers feel as though they are part of the school team	.468	.691	.968	.792
shows genuine actions of sharing and caring to new teacher	.408	.596	.908	.727
promotes collegiality by being involved in the daily life of new teachers	.736	.853	.938	.788
Scale Reliability (Cronbach's alpha)	.55	.75	.95	.86

Validity of Measurement

Three procedural elements of this investigation assisted in ensuring the validity associated with the instruments: adaptation of an existing survey, panel review, and pilot study. Kazdin (1998) suggests that adapting an existing instrument increases the likelihood of measuring constructs accurately. Thus, the adaptation of Gurule-Gonzales' original survey instrument and inclusion of a follow-up interview protocol enhanced the validity of this current investigation. To support the construct validity of the instruments in this study, the surveys and the interview protocol were reviewed by panels of various education professionals (House, 1980). Feedback from these reviews assisted in confirming the interpretation of the constructs included in the instrument and were incorporated into changes in the survey and protocol. Additional feedback from participants in the pilot study aided in determining if the survey instruments measured its

constructs reliably or if confusion existed in the constructs, the instructions, the instrument, or some other aspect of the instrument's administration (Ritter and Sue, 2007).

Instrument Administration

After submission of the study to the dissertation committee in March 2008, an Initial Review Submission Form and Research Plan was submitted to the Virginia Commonwealth University Institutional Review Board (IRB). A request was made for expedited review and waiver of documentation of consent, as the study presented no more than minimal risk to study participants. Approval to conduct the study was granted in April 2008.

The data collection process followed procedures suggested by Dillman (2007). The administration of the survey instruments included the following steps: pre-notice, initial survey, and two follow-up notices. A list of principals' email addresses was gathered from the Virginia Department of Education website, as well as from individual district websites as needed. An initial email was sent to principals in K-5 elementary schools in May 2008 requesting their participation and support of the study. Two to three days after that initial contact, an email was sent to principals to provide the Internet link for the survey instrument. As part of the survey, principals were asked to identify the number of new teachers in the building and to provide email contact information for each. A separate invitation to complete the survey was then sent to new teachers at the end of May 2008. All participants were provided an Internet link to the online survey. Contained within that email coding was a unique, alpha-numeric participant code, which

allowed for the tracking of participation. Before taking the online survey, all participants were asked to read the Research Subject Information Form and to indicate agreement to participate by checking a box using the online format provided. Two follow-up emails were sent to principals and new teachers at two-week intervals to thank them for participation or to remind them to complete the survey.

Data from the Internet surveys were captured electronically through the use of *Inquisite* (2006), a computer-based software program housed on a dedicated, firewall-protected server at Virginia Commonwealth University. Survey results were converted directly into a database for analysis, using the Statistical Package for the Social Sciences (SPSS), Version 11.0.2 for Macintosh OSX. These data were stored in a password-protected file on a personal laptop computer, which was also password protected. To provide confidentiality of responses, identifying information within the database was limited to the unique, alpha-numeric code assigned previously. These codes and their corresponding participants were contained within a separate protected file. Upon approval of the final dissertation, all data connecting alpha-numeric codes to specific school sites or specific participants will be destroyed.

Initial review of survey data indicated a participation rate, which was lower than anticipated. Of the potential 586 principals, 77 (or 13.1%) responded. Of the 62 teachers invited to respond to the survey, 16 (or 25.8%) responded. A Change in Research Submission Form was submitted to the Virginia Commonwealth University Institutional Review Board (IRB) in January 2009, requesting the addition of the telephone interview protocol. A copy of the final Research Subject Information Form as approved in February

2009 is provided in Appendix C, and a copy of the telephone interview protocol is provided in Appendix F. Permission to conduct the telephone interviews was granted in February 2009, and those interviews were completed in the spring and summer of 2009. Pairs of principals and new teachers, representing each of the four induction programs, were chosen purposefully from across the state. Principals were emailed a request to participate in the interview and asked to provide contact information for one new teacher in their building, so that he or she could be invited to participate as well. Both principals and new teachers were provided an electronic copy of the Research Subject Information Form prior to the actual interview. Each interview was taped and then transcribed by a third party for analysis. Those transcriptions were verified by another individual, who is an experienced teacher and mentor. The data were then coded using the content of the thirty-nine strategies of support from the original Internet survey. A peer reviewer, who recently completed a doctoral dissertation based partially upon qualitative methodologies, validated that the principal and new teacher responses were coded accurately (see Appendix I).

Data Analysis

After all survey data were gathered, statistical analyses were conducted to determine the significance of differences in responses. Incomplete survey responses were omitted from analyses. This resulted in the omission of responses from two principal participants ($n = 75$) and one new teacher participant ($n = 15$). A statistical significance level of $p = .05$ was established for this study. This is a standard level of statistical significance for research in the field of education and similar social sciences (Agresti &

Finlay, 1997). In addition to any statistically significant differences, this study examined practical differences as well (Jolley & Mitchell, 2004).

To address the research questions, two independent variables and two dependent variables were identified. The independent variables included (1) the role of the individual (new teacher or principal) and (2) the type of training (professional support/professional development) he or she received (ETS Pathwise, Great Beginnings, Santa Cruz, or locally developed – a review of the responses provided from principal participants selecting "other" suggested the grouping of those responses under the heading of locally developed). Demographic questions in the second section of the instruments provided the data for the independent variables. The dependent variables in this study were (1) the perceived importance of the principals' role in new teacher induction programs and (2) the perceived frequency of support on the part of the principal. Continuous value ranges for these dependent variables were computed by taking the average of principal and new teacher participant responses to survey items 1 – 39 in the primary categories of importance and frequency. Ranges for these continuous values for importance and frequency were

Importance	Range	Frequency
Extremely	4.75 – 5.00	Always
Rather to Extremely	4.25 – 4.75	Frequently to Always
Rather	3.75 – 4.25	Frequently
Somewhat to Rather	3.25 – 3.75	Occasionally to Frequently
Somewhat	2.75 – 3.25	Occasionally
Hardly to Somewhat	2.25 – 2.75	Seldom to Occasionally
Hardly	1.75 – 2.25	Seldom
Not at all to Hardly	1.25 – 1.75	Not at all to Seldom
Not at all	1.00 – 1.25	Not at all

To assist in further data analysis and interpretations of findings, those first section items were organized into four scales: Administrative Support (items 1-12), Professional Development (items 13-20), Mentoring Support (items 21-35), and Collegiality (items 36-39). The scales were theoretically constructed based upon the nature of information contained within each item (Cronbach, 1951) and as reflected in the literature on principal support (Collins, Deist, & Riethmeier, 2009; Pinkston, 2008; Rowland, Sterling, & Wong, 1999; and Sargent, 2003). Continuous value ranges for each of these scales were computed also by taking the average of responses for importance and frequency within each scale. Ranges for these continuous scale values were the same as those listed previously.

Research Question 1: Do teachers' perceptions differ from principals' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction? To answer this first research question, a multivariate analysis of variance (MANOVA) was conducted with the independent variable of role and the dependent variables of importance and frequency, grouped by the four identified scales of Administrative Support, Professional Development, Mentoring Support, and Collegiality. Additionally, item-level analyses were carried out to examine differences between principal and new teacher perceptions. Two separate *t*-tests were conducted using the independent variable of role and the dependent variables of importance and frequency.

Research Question 2: Is there a difference in teachers' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs

of induction, according to the type of induction program and the reported level of teacher training? Originally, this study called for the use of a multivariate analysis of variance (MANOVA) to examine difference in new teachers' perceptions with the independent variables of induction program and amount of training. Due to the low participation rate of teachers, there were not sufficient numbers of respondents within each subgroup to conduct these analyses. Thus, in response to the second research question, new teacher telephone interviews were examined for categorical analysis (Maxwell, 1996). The responses provided by the individual new teachers during the interviews were compared to the item-level results of the survey administration in an effort to confirm those findings. Next, mean item-level results were reported, disaggregated by induction program and amount of training. Simple comparisons of the mean new teacher reported perceptions were explored. These analyses were conducted while considering only the data provided by new teachers.

Research Question 3: Is there a difference in principals' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction, according to the type of induction program and the reported level of principal training? A multivariate analyses of variance (MANOVA) was conducted using the disaggregated independent variables of induction program (ETS Pathwise, Great Beginnings, Santa Cruz, and locally developed) and amount of training (several days of training, one-half to one day of training, information only, and no training). The dependent variables were importance and frequency, grouped by the scales of Administrative Support, Professional Development, Mentoring Support, and Collegiality.

Finally, mean item-level results were reported, disaggregated by induction program and amount of training. Simple comparisons of the mean principal reported perceptions were explored. For these analyses, attention was focused on those responses provided by principals only. (Table 25 summarizes the research questions, corresponding survey items, and statistical analyses, which were conducted.)

Table 25

Research Questions and Corresponding Data Analyses

Research Question	Instrument Items	Statistical Test
Question 1: Differences in teacher and principal perceptions	Survey questions 1-39 (grouped by scales of administrative support, professional development, mentoring support, and collegiality)	MANOVA IV: role DV: importance DV: frequency
	Survey questions 1-39 (item-level)	*t*-test IV: role DV: importance DV: frequency
Question 2: Differences in teacher perceptions given program and amount of training	Survey questions 1-39 Telephone interview questions 1-12 & 15	Categorical analysis of interview responses to confirm survey responses
	Survey questions 1-39 (item-level within scale) & questions 45 and 46 (new teacher survey)	Simple comparison of new teacher mean responses
Question 3: Differences in principal perceptions given program and amount of training	Survey questions 1-39 (grouped by scales of administrative support, professional development, mentoring support, and collegiality) & questions 48 and 49 (principal survey)	4 x 4 MANOVA IV: induction program IV: amount of training DV: importance DV: frequency
	Survey questions 1-39 (item-level within scale) & questions 48 and 49 (principal survey)	Simple comparison of principal mean responses

Delimitations

The results of this study are limited to Virginia elementary schools serving a K-5 student population. Additionally, new teachers were defined narrowly as those

individuals who have completed less than one year of teaching. Teachers had to meet licensure requirements for a provisional or collegiate professional endorsement and had to have completed either a traditional teacher licensure program or an alternative preparation program.

Summary

This non-experimental, comparative study examined differences between new teachers and principals' perceptions regarding the principal's role in supporting new teacher induction. A census of new teachers and principals throughout the Commonwealth of Virginia was conducted, using an adaptation of an instrument developed by Gurule-Gonzales (1995). Follow-up telephone interviews were conducted to confirm findings from the survey. Descriptive statistics were used to determine the statistical significance between and among the two groups' measured responses to both importance and frequency of principal's support. Categorical analysis of telephone interview data was used to examine differences in opinions that resulted from choice of induction program and/or amount of training in that program. Data gathered during this study were analyzed to determine statistically significant differences, as well as differences found to be practically significant.

CHAPTER 4

RESULTS

The purpose of this chapter is to present the research findings related to this dissertation investigation. This non-experimental study investigated the perceptions of the Virginia elementary principal's role in supporting new teacher induction. Of primary interest were the potential differences between principal and new teacher perceptions when considering the importance and frequency of sources of support. Additionally, the study explored the impact of induction model choice and level of training on those perceptions. Three primary research questions were posed:

1. Do teachers' perceptions differ from principals' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction?
2. Is there a difference in teachers' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction, according to the type of induction program and the reported level of teacher training?
3. Is there a difference in principals' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction, according to the type of induction program and the reported level of principal training?

This chapter is divided into two sections. In the first section, participant reports of the programs implemented in their districts and of their schools are provided in an effort to describe the context in which the research occurred. The second section contains an analysis of survey and interview responses, including the perceptions held by both new teacher and principal participants. This portion of the chapter provides an overview of the views held on principal support followed by descriptions and statistical analyses of each of the four scales: administrative support, professional development, mentoring support, and collegiality. Within the latter, data are presented by program choice and then amount of training.

Induction Program Usage and Training

Induction Programs

Principals and new teachers responding to the Internet survey were asked to identify the type of induction program adopted by their district or school. ETS Pathwise was identified by 23.2% of principal respondents (n = 16), Great Beginnings by 30.4% (n = 21), Santa Cruz by 31.9% (n = 22), and some sort of locally developed program by 14.5% (n = 10) (see Figure 2). The following is a list of the narrative responses provided by principals, who described their district's program as locally developed.

- District-developed model
- HR developed our program
- Locally developed model
- Locally developed program
- Our district developed their own mentor program similar to Great Beginnings. Summer training and monthly meetings on specific topics.
- Our local consortium based at [a local university] developed a mentor training program with a handbook for new teachers as well as trained mentors for each school.

- [The county] provides a week-long training for new teachers which culminates with a day spent with their mentor.
- School district's mentoring program
- The 21st Century Mentor's Handbook
- We developed an extra mentoring emphasis which we conducted on a monthly basis in concert with veteran teachers on staff.

When asked to identify the induction program utilized in their district or school, almost half (43.8%, *n* = 7) of new teachers in the study identified ETS Pathwise (see Figure 2). The remaining subjects identified Great Beginnings (25.0%, *n* = 4), Santa Cruz (25.0%, *n* = 4), or a locally developed program (6.3%, *n* = 1). In the latter instance, the district had selected to base their induction program on Louisiana's Framework for Inducting, Retaining, and Supporting Teachers (FIRST).

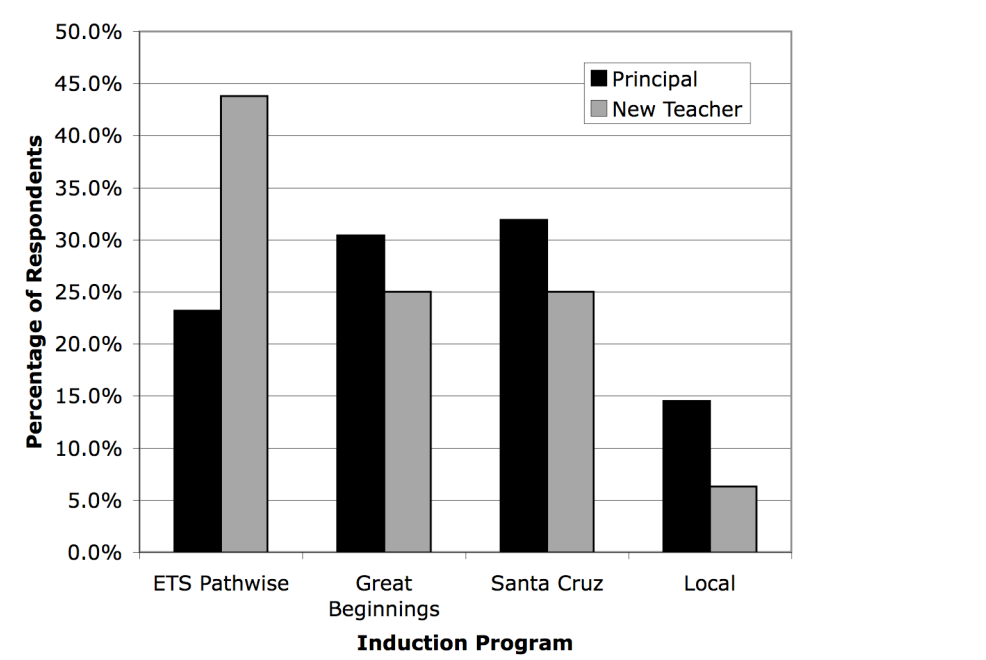


Figure 2. Frequency of Induction Program Selected by District

While principals provided the contact information for new teachers, there is no guarantee that principals and new teachers represent the same school districts. Principals may have provided email addresses for their new teachers and may have then decided not to participate in the study. Not all new teachers, who were invited to participate, chose to do so. Thus, only a simple direct comparison of the programs identified by the two groups is advisable. The percentages of principals and new teachers indicating district use of the Great Beginnings, the Santa Cruz, or some locally developed program of induction are about the same. Differences in the two relative percentages (principal and new teacher responses) are in the range of five to eight percentage points. Responses from both groups of individuals suggest locally developed programs are the least represented of the types of induction models. In contrast, a larger percentage of new teachers responded that their district had selected to use the ETS Pathwise program. There is approximately a twenty point difference in the responses of new teachers (43.8%) and principals (23.2%), regarding district use of the ETS Pathwise program.

Amount of Training

Principal and teacher Internet survey respondents were asked to identify the amount of induction program training (professional support/professional development) they had received (see Table 26). Of those principals utilizing one of the four models (ETS Pathwise, Great Beginnings, Santa Cruz, or locally developed), 26.5% responded that they had received several days of training. Additionally, 19.1% had received one/half to one full day of training, 29.4% had received only information related to the model, and 25.0% had received no training in the given model. When new teachers were asked to

describe the amount of training they received in a given model (see Table 26), almost a majority of them responded with several days of training (46.7%). Other responses included one day of training (20.0%), written information only (13.3%), and no training (20.0%).

Table 26

Reported Amount of Training In Given Induction Program

Amount of Training	**Principal Report**		**Teacher Report**	
	%	***n***	**%**	***n***
Several days	26.5	18	46.7	7
1/2 to 1 day of training	19.1	13	20.0	3
Information only	29.4	20	13.3	2
No training	25.0	17	20.0	3

A closer examination of the principal reported levels of training when disaggregated by induction program indicates that more participants reported several days of training if their district had chosen the Santa Cruz program – 50% as compared to 10.0% to 30.0% in other programs (see Table 27). Principals in districts utilizing the ETS Pathwise program were more likely to receive information only (43.8%) or one-half to a full day of training (31.3%). District training in the Great Beginnings program was divided among one-half to a full day of training (25.0%), information only (35.0%), and no training (30.0%). Data regarding training for locally developed induction programs showed the widest range of variability, with 30.0% reporting several days of training and 50.0% reporting no training at all.

A similar examination of the teacher reported levels of training when grouped by induction program (see Table 27) indicates that more subjects reported several days of training if their district had implemented the ETS Pathwise or Great Beginnings programs – 50.0% as compared to 25.0% of participants in the Santa Cruz program. Seventy-five percent of new teachers experiencing the Santa Cruz program indicated they had one-half to one full day of training. No respondents reported that they had received no training in the district's chosen program of induction.

Table 27

Principal and New Teacher Reported Level of Training Grouped by Induction Program

Amount of Training	**ETS Pathwise**		**Great Beginnings**		**Santa Cruz**		**Locally Developed**	
	P % (*n*)	NT % (*n*)	P % (*n*)	NT % (*n*)	P % (*n*)	NT % (*n*)	P % (*n*)	NT % (*n*)
Several days	12.5 (2)	50.0 (3)	10.0 (2)	50.0 (2)	50.0 (11)	25.0 (1)	30.0 (3)	100.0 (1)
1/2 to 1 day	31.3 (5)	33.3 (2)	25.0 (5)	25.0 (1)	13.6 (3)	75.0 (3)	0.0 (0)	0.0 (0)
Info Only	43.8 (7)	16.7 (1)	35.0 (7)	25.0 (1)	18.2 (4)	0.0 (0)	20.0 (2)	0.0 (0)
No Training	12.5 (2)	0.0 (0)	30.0 (6)	0.0 (0)	18.2 (4)	0.0 (0)	50.0 (5)	0.0 (0)

Note. P = Principal; NT = New Teacher.

Results of the telephone interviews revealed a similar pattern of training for new teachers but differed for principals. Two of the four new teachers, those experiencing the

ETS and a locally developed model, reported receiving several days of training in the mentoring model. The Great Beginnings teacher reported no training, and the Santa Cruz teacher reported one day of training. Principal interviews revealed that two of the four had experienced several days of training in their district's chosen mentoring model: Great Beginnings and Santa Cruz. The ETS principal reported participation in one day of training several years ago when the program was first begun, and the locally developed model principal reported received only written information regarding the model.

Principal Use of Given Program

Principals also reported on the frequency of program use. The majority of principals responding to the Internet survey reported using the program frequently (42.9%) since training. Others suggested using it often (22.2%), rarely (7.9%), or not at all (27.0%) (see Table 28).

Table 28

Principal Reported Use of Induction Program

Level of Use	%	*n*
Used it frequently since training	42.9	27
Used it often since training	22.2	14
Used it rarely since training	7.9	5
Have not used it before this year	27.0	17

An examination of the principal use responses according to induction program (see Table 29) shows frequent principal use of the given induction methodology since training in three out of the four studied models: ETS Pathwise – 43.8%; Great Beginnings – 45.0%;

locally developed – 75.0%. Participants utilizing the Santa Cruz program reported a greater difference in use, with 26.3% indicating frequent use since training, 36.8% indicating they had used it often since training, and 31.6% indicating no use prior to the current year. No principals utilizing a locally developed program replied that they used the program often or rarely.

Table 29

Principal Reported Frequency of Use Grouped by Induction Program

Frequency of Use	**ETS Pathwise**		**Great Beginnings**		**Santa Cruz**		**Locally Developed**	
	%	***n***	**%**	***n***	**%**	***n***	**%**	***n***
Frequently	43.8	7	45.0	9	26.3	5	75.0	6
Often	18.8	3	20.0	4	36.8	7	0.0	0
Rarely	18.8	3	5.0	1	5.3	1	0.0	0
Not Used	18.8	3	30.0	6	31.6	6	25.0	2

Telephone interviews with the four principals provided similar findings. Three of the four principals, Great Beginnings, ETS Pathwise, and locally developed, stated that they had used the given program frequently. Only the principal utilizing the Santa Cruz method reported not having used the program prior to the present year. These results are quite similar to those provided in Tables 28 and 29, with principals using the Santa Cruz model suggesting less frequent use in previous years than principals using any of the other three models.

School Context

Demographic information regarding the schools in which study principals serve was obtained (see Table 30 and Table 31). Internet survey responses indicate that 17.1% of participant schools were labeled as urban, 48.7% suburban, and 34.2% rural, compared with the national averages of 23.5%, 44.1%, and 32.4% respectively (Keigher, 2009). Additionally, 20.8% of participant schools were considered small (fewer than 300 students), 55.6% were considered medium (between 300 and 600 students), and 23.6% were considered large (more than 600 students), compared to the national averages of 16.4%, 63.7%, and 19.9% respectively (Keigher, 2009). When asked about the number of new teachers in their buildings, 70.0% of principals replied that they had three or fewer new teachers in their buildings, with 28.6% of respondents replying that they had two. When compared to the relative number of teaching staff in the same building, the percentage of new teachers in each building ranged from 0.0% to 30.0%. More than 14.0% of respondents indicated they had no new teachers. The mean percentage of new teachers in small schools (5.9%) was about the same as in large schools (5.7%). In contrast, principals of medium-sized schools reported that 8.4% of teachers were new teachers on staff.

Table 30

Demographics of National and Participant Schools

School Size	National %	Sample % (*n*)
Small	16.4	20.8 (15)
Medium	63.7	55.6 (40)
Large	19.9	23.6 (17)

School Location	National %	Sample % (*n*)
Urban	23.5	17.1 (13)
Suburban	44.1	48.7 (37)
Rural	32.4	34.2 (26)

Source: Keigher, 2009.

Table 31

Participant School Profile

School Size	Number of Students	Number of Teachers	Percentage of New Teachers
Small	Average: 249 Range: 150 – 300	Average: 25.3 Range: 12 – 45	Average: 5.9 Range: 0 – 16.7
Medium	Average: 473 Range: 322 – 575	Average: 40.4 Range: 25 – 110	Average: 8.4 Range: 0 – 30.0
Large	Average: 678 Range: 601 – 790	Average: 53.1 Range: 40 – 78	Average: 5.7 Range: 0 – 16.3

A comparison of school size and induction program (see Table 32) reveals that smaller schools were more likely to use the ETS Pathwise (37.5%) or Great Beginnings (37.5%) programs. Medium sized schools tended towards the Great Beginnings (28.9%)

or Santa Cruz programs (36.8%). Larger schools utilized each program relatively equally, with a range of 21.4% to 28.6% being reported across the four program models.

Table 32

Selection of Induction Program Grouped by School Size

School Size	ETS Pathwise		Great Beginnings		Santa Cruz		Locally Developed	
	%	*n*	%	*n*	%	*n*	%	*n*
Small	37.5	6	37.5	6	25.0	4	0.0	0
Medium	15.8	6	28.9	11	36.8	14	18.4	7
Large	28.6	4	21.4	3	28.6	4	21.4	3

Again, results of the telephone interviews provided similar findings. The smallest of the four schools, with about 20 classroom teachers, utilizes the ETS Pathwise model, and the largest of the four schools, with more than 850 students, utilizes the Great Beginnings model. The remaining two schools utilizing the Santa Cruz model and a locally developed model share similar characteristics. While one school was described as more urban (locally developed model) and one more suburban (Santa Cruz model), both have about 55.0% of the student population receiving Free and/or Reduced Meals. The former has thirty-one classroom teachers with one new teacher, while the latter has thirty-three classroom teachers with one new teacher.

Overall Views of Principal Support

Principal and new teacher participants were asked to respond to the thirty-nine item Internet survey, which asked for perceptions regarding both the importance and the frequency assigned each item. Using Likert-type response options, subjects responded to

the importance of principal support using a five-point scale. Respondents suggested that principal support was either Extremely Important (5), Rather Important (4), Somewhat Important (3), Hardly Important (2), or Not at all Important (1). The frequency of principal's use of mechanisms of support was rated using a similar five-point scale. Respondents identified the frequency of principal supports as Always (5), Frequently (4), Occasionally (3), Seldom (2), or Not at all (1).

Principals (n = 75) rated the overall importance of their activities with a mean of 4.54, indicating that they felt that their mechanisms of support were rather important to extremely important (see Table 33). The frequency of that support measured a mean rating of 4.12, suggesting that principals believed that they frequently engaged in these methods of support. New teachers (n = 15) replied to the same instrument items with a mean importance rating of 4.33 and mean frequency rating of 3.85. These means indicate that new teachers agreed that principal support was rather to extremely important and that principals engaged in those behaviors frequently.

Table 33

Perceptions of Importance and Frequency of Overall Support

Role	**Importance**		**Frequency**	
	M	*SD*	*M*	*SD*
Principal	4.54	.343	4.12	.423
New Teacher	4.33	.636	3.85	.824

Note. Principal, n = 75; New Teacher, n = 15.

Four pairs of principals and new teachers were selected to respond to similar questions during follow-up telephone interviews. After identifying key strategies that principals utilize to support new teachers, the principals and new teachers were asked to rate the helpfulness of those strategies and the frequency with which they occur. They were asked to rate helpfulness as extremely helpful, mostly helpful, or somewhat helpful. Frequency of principal's actions was rated as frequently, occasionally, seldom, or not at all.

Participant responses in these telephone interviews closely mirror the findings from the Internet survey, except for new teachers' report of the frequency of action on the part of the principal. Principals identified 85.4% of noted strategies as extremely helpful. They further identified those actions as occurring frequently 56.2% of the time. New teachers reacted similarly, identifying 75.0% of noted principal's actions as extremely helpful. They also stated that those actions occur frequently 62.5% of the time. This new teacher report of frequency differs from that found in the Internet survey. This may be due in part to the fact that new teachers rated the frequency of activities that they had already identified as most helpful. New teachers may have reported those strategies because they have experienced them more often than they have other strategies that are found in the list of thirty-nine survey items.

Based upon survey responses, principal and new teacher perceptions were examined further by grouping responses to items along the four scales (see Table 34): Administrative Support, Professional Development, Mentoring Support, and Collegiality. Scale means were computed by averaging the individual response ratings of each item

contained within that scale. Principal ratings indicated that they perceived their collegial supports were extremely important and their other mechanisms of support (administrative support, professional development, and mentoring support) were rather important to extremely important. New teachers considered mentoring supports to be rather important. The other three areas of support (administrative support, professional development, and collegiality) were rated as rather important to extremely important. Principals rated the importance of each of these areas of support higher than new teachers: a difference in mean ratings for Administrative Support of .29, in Professional Development of .19, in Mentoring Support of .19, and in Collegiality of .14.

Principal ratings of the frequency of support indicated that principals perceived that their collegial supports occurred frequently to always. The other methods of support (administrative support, professional development, and mentoring support) were perceived to occur frequently. New teacher perceptions were more varied. They perceived that principal supports in the areas of administrative support and professional development occurred frequently. Supports of mentoring were perceived to occur occasionally to frequently, and supports of collegiality were perceived to occur frequently to always. The perceived frequency of principal action was reported as higher by principals than by new teachers as well: a difference in mean ratings of .18 for Administrative Support, of .25 for Professional Development, .48 for Mentoring Support, and .32 for Collegiality. Notably, the difference in mean ratings is larger in all categories as measured for frequency than for importance except in the scale of administrative

support, meaning that new teacher perceptions differed more often from principal perceptions regarding the frequency of support in three of the four scales.

To examine the statistical importance of these findings, a multivariate analysis of variance (MANOVA) was conducted with the independent variable of role and the dependent variables of importance and frequency, grouped by the four identified areas (see Table 34). Significant differences between new teacher and principal perceptions related to importance were found only in the area of administrative support ($p = .002$). Principals perceived that administrative supports were more important than did the new teachers. With regard to frequency, differences in teacher and principal perceptions on three of the four scales were found to be significant, in the areas of administrative support ($p = .049$), mentoring support ($p = .021$), and collegiality ($p = .027$). In all three instances, principals perceived that these supports occurred more frequently than did the new teachers.

Table 34

Report of MANOVA Comparing Perceptions of Support by Scale

Scale	Principal Importance		New Teacher Importance		Principal Frequency		New Teacher Frequency	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Administrative Support	4.65	.322	4.36	.487	4.19	.415	4.01	.605
Professional Development	4.48	.468	4.29	.683	4.07	.498	3.82	.757
Mentoring Support	4.41	.494	4.22	.875	3.93	.622	3.45	1.171
Collegiality	4.86	.248	4.72	.598	4.72	.408	4.40	.860

Tests of Between-Subjects Effects

Source	**DV**	***SS***	***df***	***MS***	***F***	***p***
Administrative	Importance	1.325	1	1.325	10.593	.002*
Support	Frequency	.780	1	.780	3.992	.049*
Professional	Importance	.679	1	.679	2.625	.109
Development	Frequency	.810	1	.810	2.703	.104
Mentoring	Importance	.654	1	.654	1.969	.164
Support	Frequency	2.978	1	2.978	5.484	.021*
Collegiality	Importance	.294	1	.294	2.609	.110
	Frequency	1.307	1	1.307	5.072	.027*

Note. Principal, $n = 75$; New Teacher, $n = 15$.
*$p \leq .05$.

To investigate perceptions regarding principal support further, a *t*-test was conducted at the item level using the independent variable of role and the dependent variable of importance rating for each of the thirty-nine items. Respondents were asked to rate principal support as Extremely Important (5), Rather Important (4), Somewhat Important (3), Hardly Important (2), or Not at all Important (1). Mean principal and new teacher responses related to the importance of support were found to be different in 94.9% ($n = 37$) of items and significantly different in 28.2% ($n = 11$) of items (see Table

35). Regarding the latter, the principals rated the importance of the support higher than did the new teachers. Principals rated these eleven items, for the most part, as extremely important (in the range of 4.75 to 5.00). By contrast, new teachers rated these same items primarily as rather important to extremely important (in the range of 4.25 to 4.74).

Table 35

Results of t-test Comparing Mean Ratings of Importance of Support

Source of Support	**Principal**		**New Teacher**		
	M	*SD*	*M*	SD	*p*
communicates a common vision for the school	4.95	.276	4.69	.479	.004
emphasizes a philosophy of teaching and learning	4.84	.400	4.50	.816	.013
visits new teachers' classrooms.	4.94	.248	4.37	.719	.000
provides support on policies (i.e. discipline)	4.79	.439	4.44	.814	.015
provides adequate resources and materials for new teachers	4.82	.390	4.44	.629	.002
meets with mentors and new teachers jointly	4.32	.785	3.75	1.342	.023
provides release time for new teachers to observe	4.49	.641	3.94	1.340	.013
believes that mentoring contributes to success	4.77	.484	4.37	.719	.009
includes new teachers in school related activities	4.92	.270	4.69	.704	.026
tries to make new teachers feel part of the school team	4.97	.160	4.81	.544	.029
shows genuine actions of sharing and caring	4.95	.223	4.75	.577	.023

An additional *t*-test was conducted at the item level with the independent variable of role (new teacher or principal) and the dependent variable of frequency rating for each

of the thirty-nine items. Respondents were asked to rate the frequency of principal supports as Always (5), Frequently (4), Occasionally (3), Seldom (2), or Not at all (1). Mean principal and new teacher responses related to the frequency of support were found to be different in 92.3% (n = 36) of items and significantly different in 23.1% (n = 9) of items (see Table 36). With regard to the latter, the principals rated the frequency of each support higher than did the new teachers. Principals rated these nine items, for the larger part, as occurring frequently to always (in the range of 4.25 to 4.74). By contrast, new teachers rated these same items over a broader range, primarily as occurring frequently or frequently to always (in the range of 3.75 to 4.74).

Table 36

Results of t-test Comparing Mean Ratings of Frequency of Support

Source of Support	**Principal**		**Teacher**		
	M	*SD*	*M*	SD	*p*
provides adequate resources and materials for new teachers	4.58	.524	3.93	.884	.000
provides release time to attend professional training	4.38	.635	3.67	1.047	.001
promotes mentoring for new teachers	4.72	.534	4.20	1.320	.012
organizes the pairing of new teachers with mentor	4.79	.527	4.36	.745	.011
meets with mentors and new teachers jointly	3.55	1.087	2.73	1.486	.014
provides release time for new teachers to observe	3.91	.841	3.07	1.624	.004
believes that mentoring contributes to success	4.51	.726	3.80	1.373	.004
tries to make new teachers feel part of the school team	4.92	.321	4.60	.910	.018
shows genuine actions of sharing and caring	4.81	.456	4.27	1.163	.003

Results from the telephone interviews (see Appendix I) regarding perceptions of the importance of principal supports suggest somewhat similar patterns. Collectively, principals reported administrative supports as extremely helpful on ten out of twelve identified strategies. Similar perceptions were reported for professional development supports (eleven out of twelve identified strategies), mentoring supports (ten out of twelve identified strategies), and collegial supports (eleven out of twelve identified strategies). Taken collectively, the perceptions of new teachers were somewhat similar regarding the importance of principals' mechanisms of support: administrative supports (eight out of twelve identified strategies), professional development supports (eleven of twelve identified strategies), mentoring supports (eight out of the twelve identified strategies), and collegial supports (nine out of twelve identified strategies).

Principal and new teacher perceptions of the frequency of principal actions as recorded in telephone interviews (see Appendix I) differed a bit more from the results of the Internet survey. Principals reported the frequent use of stated strategies slightly less often overall than did new teachers. Principals collectively reported that their actions occurred frequently along the following lines: administrative supports for six out of twelve identified strategies; professional development supports for four out of twelve identified strategies; mentoring supports for eight out of twelve identified strategies; and collegial supports for nine out of twelve identified strategies. In particular, the principal utilizing the Santa Cruz model suggested that her role in new teacher induction was much less than that of the full-time mentor.

In contrast to survey findings, in which new teachers typically reported lower frequencies of support than their principal counterparts in every scale, new teachers participating in the telephone interviews reported higher frequencies of principal support. They rated administrative supports as occurring frequently on seven out of twelve identified strategies. Likewise, they reported the same level of frequency on professional development for nine out of the twelve identified strategies, on mentoring support for four out of twelve identified strategies, and on collegiality for nine out of twelve identified strategies. When asked to respond to the issue raised by the principal using the Santa Cruz model, the amount of support from a mentor versus from the principal, each of the four new teachers confirmed the thoughts of that principal. Each new teacher stated that she is more likely to turn to her mentor for assistance or with questions. The mentor serves as the critical individual providing support in the building.

Summary

Overall, principals perceived that their actions of support were more important and that they occurred more frequently than did new teachers. Results of telephone interviews corroborated these results regarding the importance assigned support strategies. Perceptions of the frequency with which these strategies occurred differed somewhat between telephone interview and Internet survey results, with new teachers reporting a higher frequency of supports than the principals. Only the principal using the ETS Pathwise model reported his frequency of action much lower than did the new teacher.

Differences in perceptions were examined further by considering the four identified areas of support: administrative support, professional development, mentoring support, and collegiality. The gap between the means of measured perceptions of the two groups was larger for frequency in three of the four areas: professional development, mentoring support, and collegiality. Perceptions of principals and new teachers were found to be significantly different regarding the importance of administrative support and the frequency of administrative support, mentoring support, and collegiality. Additionally, significant differences in perceptions between the two groups of individuals were found in 28.2% of responses to survey items as relate to importance of support and in 23.1% of responses to survey items as relate to frequency.

Responses from individuals participating in telephone interviews were somewhat similar for importance ratings but did differ somewhat for frequency ratings. Compared to principals, new teachers rated the frequency of principal action equal or higher in all scale categories except mentoring support. Again, it is important to consider that principals named the teachers who were to be interviewed. The opportunity for subject bias must be considered.

These findings relate directly to the first research question of this study: Do teachers' perceptions differ from principals' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction? These data suggest that teachers' perceptions differ significantly from principals' perceptions regarding some areas of support. Furthermore, it appears that this difference is found more often in the perceptions of the frequency of principal support.

Views of Principal Support by Scale

In an effort to explore further the differences in perceptions held by principals and new teachers, additional analyses of the four scales (administrative support, professional development, mentoring support, and collegiality) were conducted. The following sections present additional findings and describe ways in which principal and new teacher perceptions varied according to the induction program chosen and the amount of training received. Responses were limited to those provided by principals (n = 66) and new teachers (n = 14) identifying their induction program as one of the four in this study (ETS Pathwise, Great Beginnings, Santa Cruz, or locally developed) and their level of training as several days, one-half to one full day, information only, or no training.

Views of Administrative Support

Overview

The first twelve items of the Internet survey were grouped into a scale that measured administrative support. This scale asks questions regarding the day-to-day actions of a principal in providing resources, materials, information, feedback, and encouragement. The items comprising this scale addressed the importance of and frequency with which the principal

- communicates a common vision for the school.
- encourages participation in staff development and inservice programs.
- promotes staff development.
- emphasizes a philosophy of teaching and learning.
- nurtures new teachers and encourages professional growth.
- visits new teachers' classrooms.
- provides new teachers useful feedback on teaching performances.
- provides new teachers support on policies (i.e. discipline).
- provides current information on legal school issues (i.e. safety and child abuse).

- provides adequate resources and materials (i.e. books, supplies) for new teachers.
- encourages new teachers to read professional journals and research.
- provides professional journals and current educational articles

Using Likert-type response options, subjects responded to the importance of principal support using a five-point scale. Respondents suggested that principal support was Extremely Important (5), Rather Important (4), Somewhat Important (3), Hardly Important (2), or Not at all Important (1). The frequency of principal's use of mechanisms of support was rated using a similar five-point scale. Respondents identified the frequency of principal supports as Always (5), Frequently (4), Occasionally (3), Seldom (2), or Not at all (1).

Table 37 provides an overview of participant Internet survey responses related to Administrative Support using the scale means for principals and new teachers. The mean values suggest that principals and new teachers perceive principals' administrative support to be rather important to extremely important (scale ratings in the range of 4 or 5). Additionally, they reported that principals provided those types of support frequently (scale ratings in the range of 4). It is noteworthy that principals and new teachers agreed more closely on the frequency of administrative types of supports than they did on the importance of that support, with a difference in mean scores of .13 and .28 respectively. These mean differences in perceptions of importance and frequency were found to be statistically significant at the .05 *alpha* level (see Table 37).

Table 37

Results on the Administrative Support Scale by Role

Role	Importance		Frequency	
	M	*SD*	*M*	*SD*
Principal	4.67	.320	4.17	.413
New Teacher	4.39	.488	4.04	.610
Total	4.59	.365	4.14	.454

Note. Principal, $n = 66$; New Teacher, $n = 14$.

In order to examine the perceptions related to the scale of administrative support more closely, a multivariate analysis of variance (MANOVA) was conducted for principal responses with the dependent variables of importance and frequency and the independent variables of induction program choice and amount of training (see Table 38). Significant differences in the perceptions of principals regarding both the importance and frequency of administrative supports were found when considering the amount of training that a principal received (see Table 38). Bonferroni post hoc tests were conducted to investigate if significant differences among the four levels of training (several days, 1/2 to 1 day, information only, or no training) could be identified. These analyses indicate significant differences between perceptions regarding importance of those principals receiving several days of training and those receiving no training at all. These results suggest that the amount of training a principal receives has a significant positive impact on the principals' perceptions of the importance and frequency of supports. Principals receiving the most training are most likely to perceive their mechanisms of administrative support as more important and more frequent. Thus, in response to the third research question, there is a significant difference in principals' perceptions of administrative

supports, according to the reported level of principal training but not according to the type of induction program selected.

Table 38

MANOVA Results for Induction Program and Amount of Training on Principal Perceptions of Importance and Frequency on the Administrative Support Scale

Group	Principal Importance		New Teacher Importance		Principal Frequency		New Teacher Frequency	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Program								
ETS Pathwise	4.58	.485	4.60	.260	4.13	.415	4.01	.676
Great Beginnings	4.68	.241	3.96	.647	4.19	.476	3.77	.692
Santa Cruz	4.62	.242	4.50	.300	4.13	.372	4.22	.255
Locally Developed	4.68	.333	4.0	-	4.25	.413	3.83	-
Training								
Several Days	4.80	.212	4.27	.684	4.28	.429	3.85	.775
½ to 1 Day	4.68	.243	4.42	.363	4.23	.328	4.17	.520
Info Only	4.61	.363	4.29	.177	4.21	.399	3.70	.043
No Training	4.48	.362	4.50	.300	3.95	.427	4.22	.254

Tests of Between-Subjects Effects

Source	**DV**	***SS***	***df***	***MS***	***F***	***p***
Program	Importance	.481	3	.160	1.877	.145
	Frequency	.593	3	.198	1.156	.336
Training	Importance	1.540	4	.513	6.003	.001*
	Frequency	1.784	3	.595	3.478	.022*
Program x Training	Importance	1.207	8	.151	1.765	.106
	Frequency	.822	8	.103	.601	.772
Error	Importance	4.360	51	.085		
	Frequency	8.720	51	.171		
Total	Importance	1427.125	66			
	Frequency	1156.557	66			

Note. Principal, $n = 66$; New Teacher, $n = 14$.
*$p \leq .05$.

Due to the lower survey return rate from new teachers, it is not possible to examine teacher results in a similar way. Thus, a telephone interview was conducted with a new teacher representing each mentoring model. An examination of transcripts from those interviews suggests two themes regarding administrative supports. New teachers valued the principal supports of providing staff development opportunities and completing classroom visits and observations. Specifically, new teachers reported these staff development strategies as most helpful:

- monthly staff meetings
- nurture of the new teacher's professional growth
- emphasis on a philosophy of teaching and learning
- encouragement of lifelong learning
- principal attendance at grade level meetings
- principal attendance at group mentor/mentee meetings

When asked to identify and rate the importance of administrative supports that they found most helpful, all four new teachers identified strategies that their principals used to encourage professional growth. The ETS Pathwise teacher replied, "We have monthly staff meetings… They would go over different ways to effectively teach the children… I have plenty of opportunities … okay, this didn't work, what could I do to improve upon this, and so forth." The Great Beginnings teacher reported, "The philosophy of teaching and learning . . . That was the most important… just being brand new, it helps to know where they are coming from for education because there are so many different ideas about what education should be out there." The Santa Cruz teacher

suggested a key strategy was the principal's "encouragement to be a lifelong learner … the use of PD360 online, picking up on reading strategies. That is something I would be encouraged to do." The teacher experiencing a locally developed model said that it was extremely helpful to have the principal "attending monthly mentor meetings".

Additionally, three of the four new teachers identified their principals' classroom visits and observations as helpful. Only the Great Beginnings teacher did not mention this strategy during this portion of the interview. The ETS Pathwise teacher found that the principal would "come in and observe me and be very, very honest about what worked and what didn't work. Whenever he had something to criticize, he would also suggest a way that I could improve upon it, too. So constructive criticism was a big thing that really helped a lot." Teachers experiencing the Santa Cruz and locally developed models both agreed that this strategy was mostly or extremely helpful.

Item-level Results by Induction Program

To provide more details regarding the perceptions principals and new teachers held about the administrative sources of support, the following item level results are examined by induction program. To provide a measure of comparison, Table 39 presents the percentages of responses which rate the importance of principal support as "extremely" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the rather important to extremely important range (ratings of 4 or 5). Overall, principals agreed more often than new teachers on eighteen of the forty-eight items that the sources of administrative support were extremely important. The range of principal responses ranged from 30.0%

to 100.0%. New Teacher responses ranged from 0.0% to 100.0%. In particular, principals utilizing a locally developed induction program were more likely to agree that their support in these areas was extremely important (seven out of twelve strategies). Principals using ETS Pathwise were more likely to rate the importance of their support as something other than extremely important (five out of twelve strategies). New teachers using a locally developed program were more likely to rate the importance of the principals' support as something other than extremely important (seven out of twelve strategies). New teachers using the Santa Cruz program were more likely to rate support mechanisms as extremely important (five out of twelve strategies).

Table 39

Views on Importance of Administrative Support by Role and Induction Program: Percentage Reporting Source as "Extremely" Important

Source of Support	ETS Pathwise		Great Beginnings		Santa Cruz		Locally Developed	
	P	NT	P	NT	P	NT	P	NT
communicates a common vision for the school	87.5	66.7	100.0	50.0	100.0	100.0	90.0	0.0
encourages participation in staff development	81.3	66.7	90.0	75.0	86.4	100.0	100.0	0.0
promotes staff development	75.0	100.0	85.0	50.0	72.7	100.0	90.0	0.0
emphasizes a philosophy of teaching and learning	75.0	66.7	90.0	50.0	95.5	100.0	70.0	0.0
nurtures new teachers and encourages growth	75.0	100.0	80.0	50.0	77.3	75.0	90.0	100.0
visits new teachers' classrooms	87.5	66.7	95.0	25.0	95.5	75.0	100.0	0.0
provides useful feedback on teaching performances	75.0	83.3	80.0	75.0	30.0	75.0	90.0	100.0
provides support on policies	68.8	66.7	85.0	75.0	81.8	100.0	90.0	0.0
provides information on legal school issues	56.3	50.0	60.0	25.0	47.6	50.0	80.0	0.0
provides adequate resources and materials	75.0	83.3	80.0	75.0	81.0	50.0	80.0	100.0
encourages new teachers to read	37.5	33.3	40.0	50.0	14.3	25.0	30.0	0.0
provides professional journals and articles	37.5	33.3	20.0	25.0	19.0	25.0	30.0	0.0

Note. P = Principal (n = 66); NT = New Teacher (n = 14).

With regard to perceptions about the frequency of administrative support, Table 40 presents the percentages of responses which rate the frequency of principal support as "always" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the range of

frequently to always (ratings of 4 or 5). Overall, principals ranked the frequency of supports higher than did new teachers in twenty-eight of the possible forty-eight items. Percentages ranged from 0.0% to 88.9% for principals and from 0.0% to 100.0% for new teachers. Those principals utilizing the Great Beginnings Program were more likely to report a frequency of support in the range of "always" (four out of twelve strategies). Those using the Santa Cruz program were least likely to do the same (five out of twelve strategies). New teachers experiencing the Santa Cruz program were most likely to report a frequency of principal support in the range of "always" (seven out of twelve strategies), while their colleagues experiencing a locally developed program were least likely to do so (nine out of twelve strategies).

Table 40

Views on Frequency of Administrative Support by Role and Induction Program: Percentage Reporting Source as "Always" Occurring

Source of Support	ETS Pathwise		Great Beginnings		Santa Cruz		Locally Developed	
	P	NT	P	NT	P	NT	P	NT
communicates a common vision for the school	31.3	40.0	42.1	50.0	40.0	100.0	33.3	0.0
encourages participation in staff development	62.5	75.0	57.9	25.0	50.0	100.0	88.9	0.0
promotes staff development	62.5	60.0	63.2	50.0	50.0	100.0	88.9	0.0
emphasizes a philosophy of teaching and learning	62.5	60.0	52.6	25.0	65.0	100.0	66.7	0.0
nurtures new teachers and encourages growth	50.0	40.0	36.8	25.0	35.0	100.0	33.3	0.0
visits new teachers' classrooms	37.5	40.0	36.8	25.0	50.0	0.0	44.4	0.0
provides useful feedback on teaching performances	31.3	40.0	36.8	50.0	30.0	66.7	22.2	0.0
provides support on policies	25.0	20.0	36.8	25.0	45.0	66.7	37.5	0.0
provides information on legal school issues	12.5	33.3	21.1	0.0	9.5	0.0	50.0	0.0
provides adequate resources and materials	50.0	50.0	55.6	0.0	66.7	100.0	60.0	100.0
encourages new teachers to read	6.3	16.7	15.8	0.0	0.0	0.0	10.0	0.0
provides professional journals and articles	14.3	16.7	15.8	0.0	4.8	0.0	10.0	0.0

Note. P = Principal (n = 66); NT = New Teacher (n = 14).

Item-level Results by Amount of Training

To provide more details regarding the perceptions principals and new teachers held about the administrative sources of support, the following item level results are examined by amount of training. To provide a measure of comparison, Table 41 presents

the percentages of responses which rate the importance of principal support as "extremely" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the rather important to extremely important range (ratings of 4 or 5). Overall, principals considered the importance of their roles of support higher than did new teachers in thirty-one of the forty-eight items. Percentages ranged from 5.9% to 100.0% for principals and from 0.0% to 100.0% for new teachers. Principals who received several days of training were most likely to report that their administrative support efforts were extremely important (eight out of twelve strategies). Those principals receiving no training were least likely to do so (ten out of twelve strategies). New teachers who received no training were most likely to report that their principals' administrative support efforts were extremely important (three out of twelve strategies). Those receiving information only were the least likely to perceive those supports as equally important (four out of twelve strategies).

Table 41

Views on Importance of Administrative Support by Role and Amount of Training: Percentage Reporting Source as "Extremely" Important

Source of Support	Several Days		1/2 to 1 Day		Info Only		No Training	
	P	NT	P	NT	P	NT	P	NT
communicates a common vision for the school	100.0	42.9	100.0	100.0	95.0	50.0	88.2	100.0
encourages participation in staff development	94.4	71.4	92.3	66.7	75.0	50.0	94.1	100.0
promotes staff development	94.4	71.4	84.6	100.0	60.0	50.0	82.4	100.0
emphasizes a philosophy of teaching and learning	100.0	71.4	92.3	66.7	80.0	0.0	70.6	100.0
nurtures new teachers and encourages growth	88.9	71.4	76.9	100.0	85.0	100	64.7	66.7
visits new teachers' classrooms	94.4	71.4	100.0	33.3	95.0	0.0	88.2	66.7
provides useful feedback on teaching performances	94.4	71.4	84.6	100.0	85.0	100.0	64.7	66.7
provides support on policies	83.3	42.9	76.9	33.3	85.0	50.0	76.5	100.0
provides information on legal school issues	76.5	28.6	38.5	33.3	75.0	100.0	35.3	33.3
provides adequate resources and materials	100.0	71.4	84.6	33.3	70.0	50.0	64.7	33.3
encourages new teachers to read	41.2	42.9	46.2	0.0	30.0	0.0	5.9	0.0
provides professional journals and articles	35.3	28.6	30.8	33.3	20.0	0.0	17.6	0.0

Note. P = Principal (n = 66); NT = New Teacher (n = 14).

Likewise, Table 42 presents the percentages of responses which rate the frequency of principals' administrative support as "always" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the range of frequently to always (ratings of 4 or 5).

Taken as a whole, principals agreed more strongly than did new teachers that their support mechanisms were always offered on twenty-nine of the forty-eight items. Percentages ranged from 0.0% to 84.6% for principals and from 0.0% to 100.0% for new teachers. Principals receiving several days of training were most likely to report a frequency of support in the range of "always" (seven out of twelve strategies); whereas, their colleagues participating in no training were least likely to report the same (seven out of twelve strategies). New teachers who received no training were most likely to report a frequency of principal support in the range of "always" (seven out of twelve strategies). Those new teachers receiving only information were the least likely to do so (four out of twelve strategies).

Table 42

Views on Frequency of Administrative Support by Role and Amount of Training: Percentage Reporting Source as "Always" Occurring

Source of Support	Several Days		1/2 to 1 Day		Info Only		No Training	
	P	NT	P	NT	P	NT	P	NT
communicates a common vision for the school	43.8	33.3	53.8	66.7	36.8	50.0	18.8	100.0
encourages participation in staff development	75.0	20.0	61.5	100.0	52.6	0.0	56.3	100.0
promotes staff development	81.3	40.0	61.5	100.0	47.4	0.0	62.5	100.0
emphasizes a philosophy of teaching and learning	68.8	20.0	84.6	66.7	52.6	50.0	43.8	100.0
nurtures new teachers and encourages growth	56.3	20.0	53.8	66.7	36.8	0.0	12.5	100.0
visits new teachers' classrooms	50.0	40.0	53.8	33.3	42.1	0.0	25.0	0.0
provides useful feedback on teaching performances	37.5	40.0	46.2	66.7	31.6	0.0	12.5	66.7
provides support on policies	43.8	20.0	30.8	0.0	38.9	50.0	31.3	66.7
provides information on legal school issues	29.4	16.7	7.7	33.3	21.1	0.0	17.6	0.0
provides adequate resources and materials	70.6	33.3	53.8	33.3	52.6	50.0	56.3	0.0
encourages new teachers to read	11.8	16.7	7.7	0.0	10.5	0.0	0.0	0.0
provides professional journals and articles	11.8	16.7	8.3	0.0	16.7	0.0	5.9	0.0

Note. P = Principal (n = 66); NT = New Teacher (n = 14).

Summary of Administrative Support

When considering the administrative supports of a principal, the perceptions of new teachers and principals align more often regarding the frequency of those types of supports than regarding the importance of those same types of supports. This holds true

in both the survey and interview results. When considering the impact of program choice on those perceptions, no significant differences are found in the perceptions of principals or new teachers. However, when considering the impact of amount of training, significant differences are found in principals' perceptions regarding both importance and frequency of support.

Principal perceptions varied more across the four induction programs. Principals in locally developed programs were most likely to suggest their support was extremely important, while principals utilizing the Great Beginnings program were most likely to suggest the greater frequency of their support. Those principal groups expressing the least importance and frequency were the ETS Pathwise and Santa Cruz, respectively. Principals receiving several days of training were most likely to agree on both the extreme importance and greater frequency of support. Those receiving no training were least likely to state the same.

New teachers who participate in a Santa Cruz induction program are most likely to suggest that supports are "extremely" important and that they occur "always". Teachers receiving a locally developed program of induction are least likely to hold the same perceptions. New teachers receiving no training were most likely to suggest the greater importance and frequency of principal support. Those receiving information only were least likely to agree in the same way.

Views of Professional Development

Overview

The next eight items of the Internet survey were grouped into a scale that measured professional development. This scale seeks information related to those principal actions that encourage professional growth by providing time, funding, and encouragement for additional training. The items comprising this scale addressed the importance and frequency with which the principal

- provides new teachers release time to attend professional training.
- provides funds for professional development.
- encourages new teachers to pursue professional improvement through college course work and commercial workshops.
- encourages support for new teachers from outside agencies.
- provides specific staff development training programs for new teachers.
- believes and demonstrates that staff development is essential for new teachers professional growth.
- gives compliments on teaching performance to new teachers.
- believes and emphasizes that staff development contributes greatly to the success of new teachers.

Using Likert-type response options, subjects responded to the importance of principal support using a five-point scale. Respondents suggested that principal support was Extremely Important (5), Rather Important (4), Somewhat Important (3), Hardly Important (2), or Not at all Important (1). The frequency of principal's use of mechanisms of support was rated using a similar five-point scale. Respondents identified the frequency of principal supports as Always (5), Frequently (4), Occasionally (3), Seldom (2), or Not at all (1).

Table 43 provides an overview of participant responses related to Professional Development using the scale means for principals and new teachers. The mean values

suggest that principals and new teachers perceive principals' professional development mechanisms of support to be rather important to extremely important (scale ratings in the range of 4 or 5) and that this support occurs frequently (scale ratings in the range of 4). It is noteworthy that principal and new teacher differences of opinion were almost identical between the two areas of importance and frequency of support, with a difference in mean scores of .10 and .11 respectively. Neither of these mean differences in perceptions were found to be statistically significant at the .05 *alpha* level (see Table 34).

Table 43

Results on the Professional Development Support Scale by Role

Role	**Importance**		**Frequency**	
	M	*SD*	*M*	*SD*
Principal	4.49	.473	4.05	.496
New Teacher	4.39	.566	3.94	.617
Total	4.47	.489	4.03	.517

Note. Principal, $n = 66$; New Teacher, $n = 14$.

In order to examine the perceptions related to the scale of professional development more closely, a multivariate analysis of variance (MANOVA) was conducted for principal responses with the dependent variables of importance and frequency and the independent variables of induction program choice and amount of training (see Table 44). Significant differences in the perceptions of principals regarding both the importance and frequency of professional development support were noted when considering the amount of training that a principal received (see Table 44). Bonferroni post hoc tests were conducted to investigate if significant differences among the four

levels of training (several days, 1/2 to 1 day, information only, or no training) could be identified. These analyses did not indicate significant areas of interaction. These results suggest that the amount of training a principal receives has a significant positive impact on the principals' perceptions of the importance and frequency of supports. Principals receiving the most training are most likely to perceive their mechanisms of professional development support as more important and more frequent. Thus, in response to the third research question, there is a significant difference in principals' perceptions of professional development, according to the reported level of principal training but not according to the type of induction program selected.

Table 44

MANOVA Results for Induction Program and Amount of Training on Principal Perceptions of Importance and Frequency on the Professional Development Support Scale

Group	Principal Importance		New Teacher Importance		Principal Frequency		New Teacher Frequency	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Program								
ETS Pathwise	4.47	.601	4.67	.458	3.98	.572	4.13	.530
Great Beginnings	4.42	.511	3.77	.530	3.99	.563	3.51	.727
Santa Cruz	4.46	.415	4.46	.315	4.08	.430	4.04	.688
Locally Developed	4.61	.309	4.38	-	4.19	.383	4.12	-
Training								
Several Days	4.64	.350	4.48	.649	4.16	.350	3.98	.784
½ to 1 Day	4.62	.443	4.08	.577	4.09	.369	3.98	.542
Info Only	4.45	.522	4.16	.833	4.11	.595	3.59	.227
No Training	4.23	.481	4.46	.315	3.83	.554	4.04	.688

Tests of Between-Subjects Effects

Source	**DV**	***SS***	***df***	***MS***	***F***	***p***
Program	Importance	.663	3	.221	1.018	.392
	Frequency	.960	3	.320	1.443	.241
Training	Importance	2.482	3	.827	3.813	.015*
	Frequency	1.851	3	.617	2.782	.050*
Program x Training	Importance	1.248	8	.156	.719	.674
	Frequency	2.923	8	.365	1.648	.135
Error	Importance	11.062	51	.217		
	Frequency	11.308	51	.222		
Total	Importance	1336.269	66			
	Frequency	1097.141	66			

Note. Principal, $n = 66$; New Teacher, $n = 14$.
*$p \leq .05$.

Results from the telephone interview conducted with a new teacher representing each mentoring model suggest two themes regarding professional development supports.

New teachers valued the supports their principals provided by encouraging external coursework and training and approving release time for that and by demonstrating that professional development is important. With regard to this last element, new teachers reported these strategies as most helpful:

- providing the structure of staff meetings
- encouraging them to attend staff development
- (principals) attending grade level meetings with their teachers

New teachers noted their principal's support of their professional growth as extremely helpful. The Great Beginings teacher observed that "… it is one thing to command someone to do something and then not participate in it, and it is another thing to take your own time to do it, as well." The teacher experiencing a locally developed model listed two specific strategies that her principal uses: "Encouraging … attendance [at] county-wide workshops" and "providing professional development activities" at the school level. Both the ETS Pathwise and Santa Cruz teachers rated all noted professional development strategies as extremely helpful.

New teachers also highlighted their principals' support of coursework and training provided by outside sources. The ETS Pathwise teacher noted that her principal "really encourages growth through attending classes… I am taking a class right now . . . on classroom management, and he was very, very supportive of that . . . always asking me how is it going…" The Great Beginnings teacher said that her principal "went through tremendous hoops to get me signed up for the DRA training courses that the county requires all their teachers to have and he went above and beyond on that. He makes sure

all the teachers are constantly going to all of the professional meetings that we have to be going to." The first strategy mentioned by the Santa Cruz teacher was "providing release for going to conferences or such things." She rated this mechanism of support as extremely helpful.

Item-level Results by Induction Program

To provide more details regarding the perceptions principals and new teachers held about the professional development sources of support, the following item level results are examined by induction program. To provide a measure of comparison, Table 45 presents the percentages of respondents who rated principal support as "extremely important". This is reflective of the fact that responses related to principal support were largely positive and most responses were in the rather important to extremely important range (ratings of 4 or 5). Overall, principals agreed that the sources of professional development support were extremely important more often than did the new teachers on twelve of the thirty-two items. Responses ranged from 10.0% to 90.9% for principals and 0.0% to 100.0% for new teachers. Principals using a locally developed program were most likely to report their support as extremely important (five out of eight strategies). Principals using the Great Beginnings program were least likely to do so (three out of eight strategies). New teacher perceptions fell along the same lines, with more new teachers using a locally developed program reporting the principals' support as extremely important (four out of eight strategies) and new teachers using Great Beginnings least likely to report the same (four out of eight strategies).

Table 45

Views on Importance of Professional Development by Role and Induction Program: Percentage Reporting Source as "Extremely" Important

Source of Support	ETS Pathwise		Great Beginnings		Santa Cruz		Locally Developed	
	P	NT	P	NT	P	NT	P	NT
provides release time to attend training	62.5	83.3	65.0	0.0	60.0	75.0	80.0	100.0
provides funds for professional development	75.0	83.3	40.0	0.0	57.1	75.0	70.0	100.0
encourages new teachers to pursue improvement	43.8	83.3	50.0	0.0	40.0	75.0	60.0	0.0
encourages support for new teachers from outside	50.0	50.0	40.0	0.0	14.3	25.0	10.0	0.0
provides specific staff development training	50.0	66.7	60.0	75.0	63.6	50.0	70.0	100.0
believes staff development is essential for growth	62.5	83.3	60.0	25.0	68.2	75.0	90.0	0.0
gives compliments on teaching performance	87.5	100.0	85.0	50.0	90.9	100.0	80.0	0.0
believes staff development contributes to success	68.8	83.3	60.0	50.0	66.7	75.0	80.0	100.0

Note. P = Principal (n = 66); NT = New Teacher (n = 14).

With regard to perceptions about the frequency of professional development support, Table 46 presents the percentages of responses which rate the frequency of principal support as "always" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the range of frequently to always (ratings of 4 or 5). Overall, principals ranked the frequency of supports higher than did new teachers in thirteen of the thirty-two areas.

Percentages ranged from 0.0% to 57.1% for principals and from 0.0% to 100.0% for new teachers. Principals using a locally developed program were most likely to report a frequency of support in the range of "always" (four out of eight strategies). Principals using the ETS Pathwise program were least likely to agree (four out of eight strategies). New teachers using the Santa Cruz program were most likely to report a frequency of principal support in the range of "always" (three out of eight strategies). Those new teachers using a locally developed program were least likely to report the same (four out of eight strategies).

Table 46

Views on Frequency of Professional Development by Role and Induction Program: Percentage Reporting Source as "Always" Occurring

Source of Support	ETS Pathwise		Great Beginnings		Santa Cruz		Locally Developed	
	P	NT	P	NT	P	NT	P	NT
provides release time to attend training	25.0	33.3	47.4	0.0	55.0	33.3	40.0	100.0
provides funds for professional development	37.5	50.0	15.8	0.0	28.6	66.7	50.0	100.0
encourages new teachers to pursue improvement	18.8	16.7	31.6	0.0	33.3	33.3	40.0	0.0
encourages support for new teachers from outside	12.5	33.3	10.5	0.0	14.3	0.0	0.0	0.0
provides specific staff development training	12.5	40.0	36.8	50.0	23.8	33.3	20.0	0.0
believes staff development is essential for growth	31.3	50.0	31.6	25.0	33.3	33.4	70.0	0.0
gives compliments on teaching performance	56.3	66.7	47.4	50.0	57.1	66.7	50.0	0.0
believes staff development contributes to success	31.3	50.0	26.3	50.0	23.8	66.7	50.0	0.0

Note. P = Principal (n = 66); NT = New Teacher (n = 14).

Item-level Results by Amount of Training

To provide more details regarding the perceptions principals and new teachers held about the professional development sources of support, the following item level results are examined by amount of training. To provide a measure of comparison, Table 47 presents the percentages of responses which rate the importance of principal support as "extremely" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the rather important to extremely important range (ratings of 4 or 5). Overall, principals considered

the importance of their roles of support higher than did new teachers in eighteen of the thirty-two items. Percentages ranged from 11.8% to 92.3% for principals and from 0.0% to 100.0% for new teachers. Principals and new teachers who received several days of training were most likely to report that the principals' support was extremely important (five out of eight strategies and three out of eight strategies, respectively). Principals receiving no training were least likely to report the same (eight out of eight strategies), as were new teachers receiving one-half to one full day of training (three out of eight strategies).

Table 47

Views on Importance of Professional Development by Role and Amount of Training: Percentage Reporting Source as "Extremely" Important

Source of Support	Several Days		1/2 to 1 Day		Info Only		No Training	
	P	NT	P	NT	P	NT	P	NT
provides release time to attend training	81.3	71.4	76.9	33.3	60.0	50.0	47.1	66.7
provides funds for professional development	70.6	71.4	69.2	33.3	65.0	100.0	29.4	66.7
encourages new teachers to pursue improvement	37.5	57.1	53.8	33.3	60.0	50.0	35.3	66.7
encourages support for new teachers from outside	29.4	42.9	46.2	0.0	35.0	50.0	11.8	0.0
provides specific staff development training	72.2	85.7	69.2	66.7	60.0	50.0	41.2	33.3
believes staff development is essential for growth	83.3	71.4	76.9	66.7	60.0	0.0	52.9	66.7
gives compliments on teaching performance	88.9	71.4	92.3	100.0	90.0	50.0	76.5	100.0
believes staff development contributes to success	88.2	71.4	69.2	100.0	70.0	50.0	41.2	66.7

Note. P = Principal (n = 66); NT = New Teacher (n = 14).

Likewise, Table 48 presents the percentages of responses which rate the frequency of principals' professional development support as "always" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the range of frequently to always (ratings of 4 or 5). Taken as a whole, principals agreed more strongly than did new teachers that their professional development support mechanisms were "always" offered on eighteen of thirty-two items. Percentages ranged from 5.9% to 58.8% for principals and from 0.0% to 100.0% for new teachers. Principals receiving information only were most likely to

report a frequency of support in the range of "always" (four out of eight strategies). Those receiving no training were least likely to agree (five out of eight strategies). New teachers receiving one-half to one full day of training were most likely to report a frequency of principal support in the range of "always" (four out of eight strategies). Their colleagues receiving information only were least likely to report the same (five out of eight strategies).

Table 48

Views on Frequency of Professional Development by Role and Amount of Training: Percentage Reporting Source as "Always" Occurring

Source of Support	**Several Days**		**1/2 to 1 Day**		**Info Only**		**No Training**	
	P	NT	P	NT	P	NT	P	NT
provides release time to attend training	56.3	33.3	38.5	33.3	42.1	0.0	35.3	33.3
provides funds for professional development	29.4	50.0	23.1	33.3	47.4	0.0	17.6	66.7
encourages new teachers to pursue improvement	29.4	16.7	23.1	0.0	31.6	0.0	35.3	33.3
encourages support for new teachers from outside	11.8	16.7	7.7	0.0	15.8	50.0	5.9	0.0
provides specific staff development training	23.5	33.3	38.5	100.0	26.3	0.0	11.8	33.3
believes staff development is essential for growth	41.2	33.3	38.5	66.7	42.1	0.0	29.4	33.3
gives compliments on teaching performance	58.8	33.3	46.2	100.0	57.9	50.0	47.1	66.7
believes staff development contributes to success	35.3	33.3	23.1	100.0	36.8	0.0	23.5	66.7

Note. P = Principal (n = 66); NT = New Teacher (n = 14).

Summary of Professional Development

When considering the professional development supports of a principal, the difference in overall perceptions of new teachers and principals are roughly the same with regard to the importance and frequency of those supports, when considering the survey results. A review of the interview data suggests that new teachers rated the frequency of these supports higher than did principals. When considering the impact of program choice on those perceptions, no significant differences are found in the perceptions of principals or new teachers. However, when considering the impact of amount of training, significant differences are found in principals' perceptions regarding both importance and frequency of support.

Principal perceptions of both importance and frequency were strongest for those using a locally developed program. Those using the Great Beginnings program were least likely to label their support as "extremely" important. Those using the ETS Pathwise program were least likely to suggest that their support was "always" available. Principals receiving several days of training were most likely to consider their support as "extremely" important; whereas those receiving information only were most likely to suggest that those supports are "always" available. Least likely to agree were those principals receiving no training.

Based upon survey results, new teachers participating in a locally developed program were most likely to label their principals' professional development supports as "extremely" important, and those participating in a Santa Cruz program were most likely to suggest that this support "always" occurs. New teachers in the Great Beginnings

program were least likely to label support as "extremely" important, and those using ETS Pathwise were least likely to answer that their principals "always" provided that support. Interview results suggest that new teachers experiencing the Great Beginnings model were least likely to report that their principals "always" provide these helpful supports. New teachers receiving several days of training were most likely to label the importance of support as "extremely"; while those receiving one-half to one full day of training were most likely to suggest those supports "always" occur. Those least likely to agree that their principals' support was extremely important were those new teachers who received one-half to one full day of training and those new teachers receiving information only. Least likely to agree that supports were "always" available were those new teachers who received information only.

Views of Mentoring Support

Overview

The next fifteen items of the Internet survey were grouped into a scale that measured mentoring support. This scale provides information related to those principal actions that encourage and support the mentor pairing of a new teacher with a veteran colleague. The items comprising this scale addressed the importance and frequency with which the principal

- promotes mentoring for new teachers.
- organizes the pairing of new teachers with an appropriate mentor.
- meets with mentors and new teachers jointly, to discuss issues of concern.
- encourages mentors to establish networks for new teachers.
- encourages mentors to demonstrate teaching lessons to new teachers.
- provides release time for new teachers to observe demonstration lessons.
- provides training for mentors.
- encourages mentors to locate materials for new teachers.

- encourages mentors to stress time/student management to new teachers.
- provides mentors with instructional strategies to use with new teachers.
- encourages mentors to show genuine actions of sharing and caring to new teachers.
- encourages mentors to help new teachers grow professionally
- encourages mentors to recognize new teachers teaching performance.
- encourages mentors to give feedback to new teachers on teaching performance.
- believes that mentoring contributes greatly to the success of new teachers.

Using Likert-type response options, subjects responded to the importance of principal support using a five-point scale. Respondents suggested that principal support was Extremely Important (5), Rather Important (4), Somewhat Important (3), Hardly Important (2), or Not at all Important (1). The frequency of principal's use of mechanisms of support was rated using a similar five-point scale. Respondents identified the frequency of principal supports as Always (5), Frequently (4), Occasionally (3), Seldom (2), or Not at all (1).

Table 49 provides an overview of participant responses related to mentoring support using the scale means for principals and new teachers. The mean values suggest that principals and new teachers perceive principals' support of mentoring to be rather important to extremely important (scale ratings in the range of 4 or 5). Principal participants suggested that this support occurs frequently (scale ratings in the range of 4), while new teacher participants suggested that their principals provide this support occasionally to frequently (scale ratings in the range of 3 or 4). Differences in principal and new teacher perceptions of importance and frequency of support are greater in this scale of support than in any other, with a difference in mean importance of .07 and in

mean frequency of .41. The mean differences in perceptions of frequency were found to be statistically significant at the .05 *alpha* level (see Table 34).

Table 49

Results on the Mentoring Support Scale by Role

Role	Importance		Frequency	
	M	*SD*	*M*	*SD*
Principal	4.42	.506	3.95	.610
New Teacher	4.35	.752	3.54	1.161
Total	4.41	.553	3.88	.744

Note. Principal, $n = 66$; New Teacher, $n = 14$.

In order to examine the perceptions related to the scale of mentoring support more closely, a multivariate analysis of variance (MANOVA) was conducted for principal responses with the dependent variables of importance and frequency and the independent variables of induction program choice and amount of training (see Table 50). Significant differences in the perceptions of principals regarding the frequency of support were found for the amount of training that a principal received (see Table 50). Bonferroni post hoc tests were conducted to investigate differences among the four levels of training (several days, 1/2 to 1 day, information only, or no training). These analyses revealed a significant difference between those receiving several days of training and those receiving no training. These results suggest that the amount of training a principal receives has a significant positive impact on the principals' perceptions of the frequency of mentoring supports. Principals receiving the most training are most likely to perceive their mechanisms of mentoring support as more frequent. Thus, in response to the third

research question, there is a significant difference in principals' perceptions of mentoring support, according to the reported level of principal training but not according to the type of induction program.

Table 50

MANOVA Results for Induction Program and Amount of Training on Principal Perceptions of Importance and Frequency on the Mentoring Support Scale

Group	Principal Importance		New Teacher Importance		Principal Frequency		New Teacher Frequency	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Program								
ETS Pathwise	4.36	.485	4.49	.482	3.89	.570	3.50	1.161
Great Beginnings	4.35	.670	3.96	1.295	3.84	.765	3.41	1.700
Santa Cruz	4.44	.393	4.37	.539	4.10	.444	3.90	.863
Locally Developed	4.55	.463	4.27	-	3.98	.672	3.13	-
Training								
Several Days	4.55	.411	4.37	1.097	4.21	.457	3.47	1.373
½ to 1 Day	4.56	.350	4.34	.502	4.10	.459	3.91	1.042
Info Only	4.28	.584	3.93	.199	4.01	.630	2.62	1.384
No Training	4.31	.588	4.37	.539	3.53	.644	3.90	.863

Tests of Between-Subjects Effects

Source	**DV**	***SS***	***df***	***MS***	***F***	***p***
Program	Importance	.709	3	.236	.883	.456
	Frequency	1.475	3	.492	1.603	.200
Training	Importance	1.405	3	.468	1.750	.169
	Frequency	4.840	3	1.613	5.259	.003*
Program x Training	Importance	1.766	8	.221	.824	.585
	Frequency	3.224	8	.403	1.313	.258
Error	Importance	13.652	51	.268		
	Frequency	15.648	51	.307		
Total	Importance	1302.601	66			
	Frequency	1056.301	66			

Note. Principal, $n = 66$; New Teacher, $n = 14$.
*$p \leq .05$.

Results of the telephone interviews with a new teacher representing each induction model suggest one primary theme regarding mentoring supports. New teachers

valued the supports their principals provided by pairing them with an appropriate mentor. This was the only strategy that was identified by all four respondents. Additional strategies that new teachers identified were providing materials/resources (ETS Pathwise teacher) and providing meeting structure (Santa Cruz teacher).

The ETS Pathwise teacher stated that her principal "paired me with a veteran teacher… [who] is very approachable… any time I needed advice or needed to vent, she was always there for me. She also provided me with a lot of materials and [other resources] that I could possibly use, and even though she was a math teacher and I teach art, she really, really worked hard in trying to make me feel more comfortable with being a first year teacher." The Great Beginnings teacher spoke to the importance of being paired with someone who teaches the same content: "I think the most important [strategy] would be the mentor that matches content because I don't think that it would be possible to really understand each other, the daily life of that specific teacher, because each classroom is so different, if they weren't involved in the same content." Noting the critical nature of having a mentor, the Santa Cruz teacher said, that "establishing that I have a mentor is number one." The teacher experiencing a locally developed model also noted the importance of a strong mentor, listing the following: "Providing new teachers with a mentor, collaborating and providing feedback with lead mentors at the monthly mentor meetings, and … sharing helpful strategies and techniques that mentors can use with their mentees."

The pattern of responses from new teachers, who participated in these telephone interviews, was more divergent in this scale than in any other. This mirrors the results of

the Internet survey responses. The differences in mean ratings in the mentoring support scale were greater than in any other scale in the Internet survey results.

Item-level Results by Induction Program

To provide more details regarding the perceptions principals and new teachers held about the mentoring sources of support, the following item level results are examined by induction program. To provide a measure of comparison, Table 51 presents the percentages of responses which rate the importance of principal support as "extremely" from the response options. This is reflective of the fact that responses related to principal support of mentoring efforts were largely positive and most responses were in the rather important to extremely important range (ratings of 4 or 5). Overall, principals agreed more so than new teachers that their support of mentoring was extremely important in twenty-six of sixty possible items. Responses ranged from 22.7% to 90.9% for principals and 0.0% to 100.0% for new teachers. Principals using a locally developed program were most likely to report that their mechanisms of support were extremely important (six out of fifteen strategies). Those utilizing the ETS Pathwise program were least likely to report the same (six out of fifteen strategies). New teachers using the Santa Cruz program were most likely to report principal supports as extremely important (nine out of fifteen strategies). Those new teachers using a locally developed program were least likely to do so (eleven out of fifteen strategies).

Table 51

Views on Importance of Mentoring Support by Role and Induction Program: Percentage Reporting Source as "Extremely" Important

Source of Support	ETS Pathwise		Great Beginnings		Santa Cruz		Locally Developed	
	P	NT	P	NT	P	NT	P	NT
promotes mentoring for new teachers	87.5	100.0	90.0	75.0	86.4	100.0	90.0	100.0
organizes the pairing of new teachers and mentor	81.3	100.0	90.0	66.7	85.7	100.0	90.0	0.0
meets with mentors and new teachers jointly	62.5	50.0	45.0	50.0	40.9	50.0	50.0	0.0
encourages mentors to establish networks	68.8	66.7	31.6	50.0	59.1	75.0	50.0	0.0
encourages mentors to demonstrate teaching	37.5	50.0	45.0	50.0	54.5	100.0	60.0	100.0
provides time for new teachers to observe	50.0	50.0	50.0	25.0	72.7	75.0	50.0	100.0
provides training for mentors	25.0	33.3	50.0	50.0	45.5	25.0	33.3	0.0
encourages mentors to locate materials	37.5	66.7	45.0	50.0	31.8	50.0	60.0	100.0
encourages mentors to stress management	40.0	66.7	57.9	75.0	50.0	75.0	60.0	0.0
provides mentors with instructional strategies	31.3	66.7	40.0	50.0	22.7	66.7	55.6	0.0
encourages mentors to show sharing and caring	56.3	80.0	70.0	50.0	72.7	50.0	80.0	0.0
encourages mentors to help new teachers grow	66.7	66.7	70.6	50.0	54.5	50.0	80.0	0.0
encourages mentors to recognize performance	43.8	66.7	31.6	50.0	50.0	50.0	50.0	0.0
encourages mentors to give feedback	50.0	50.0	60.0	50.0	77.3	75.0	60.0	0.0
believes that mentoring contributes to success	81.3	50.0	70.0	50.0	90.9	75.0	90.0	0.0

Note. P = Principal (n = 75); NT = New Teacher (n = 15).

With regard to perceptions about the frequency of support, Table 52 presents the percentages of responses which rate the frequency of principal support of mentoring as "always" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the range of frequently to always (ratings of 4 or 5). Overall, principals ranked the frequency of their support of mentoring efforts higher than did new teachers in thirty-four of the sixty areas. Percentages ranged from 0.0% to 100.0% for principals and from 0.0% to 100.0% for new teachers. Principals using a locally developed program were most likely to report a frequency of support in the range of "always" (seven out of fifteen strategies). Those using the ETS Pathwise program were least likely to report the same (nine out of fifteen strategies). New teachers using the Great Beginnings program were most likely to report a frequency of principal support in the range of "always" (eight out of fifteen strategies), while those experiencing a locally developed program were least likely to agree (twelve out of fifteen strategies).

Table 52

Views on Frequency of Mentoring Support by Role and Induction Program: Percentage Reporting Source as "Always" Occurring

Source of Support	ETS Pathwise		Great Beginnings		Santa Cruz		Locally Developed	
	P	NT	P	NT	P	NT	P	NT
promotes mentoring for new teachers	62.5	66.7	84.2	50.0	81.0	100.0	70.0	100.0
organizes the pairing of new teachers and mentor	81.3	50.0	78.9	33.3	81.0	66.7	100.0	0.0
meets with mentors and new teachers jointly	25.0	16.7	21.1	25.0	14.3	33.3	11.1	0.0
encourages mentors to establish networks	26.7	20.0	10.5	50.0	25.0	33.3	40.0	0.0
encourages mentors to demonstrate teaching	18.8	16.7	26.3	50.0	23.8	66.7	20.0	0.0
provides time for new teachers to observe	12.5	33.3	26.3	25.0	47.6	66.7	10.0	0.0
provides training for mentors	12.5	0.0	26.3	50.0	19.0	0.0	20.0	0.0
encourages mentors to locate materials	25.0	33.3	21.1	50.0	23.8	33.3	40.0	0.0
encourages mentors to stress management	18.8	33.3	21.1	50.0	42.9	33.3	50.0	0.0
provides mentors with instructional strategies	12.5	16.7	26.3	50.0	0.0	50.0	44.4	0.0
encourages mentors to show sharing and caring	40.0	33.3	52.6	50.0	52.4	33.3	66.7	0.0
encourages mentors to help new teachers grow	31.3	33.3	44.4	50.0	38.1	33.3	60.0	0.0
encourages mentors to recognize performance	18.8	33.3	21.1	50.0	33.3	0.0	30.0	0.0
encourages mentors to give feedback	25.0	33.3	31.6	50.0	42.9	33.3	30.0	0.0
believes that mentoring contributes to success	50.0	33.3	52.6	50.0	81.0	66.7	77.8	0.0

Note. P = Principal (n = 75); NT = New Teacher (n = 15).

Item-level Results by Amount of Training

To provide more details regarding the perceptions principals and new teachers held about the sources of mentoring support, the following item level results are examined by amount of training. To provide a measure of comparison, Table 53 presents the percentages of responses which rate the importance of principal support as "extremely" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the rather important to extremely important range (ratings of 4 or 5). Overall, principals considered the importance of their roles of support for mentoring higher than did new teachers in thirty-two of the sixty items. Percentages ranged from 15.8% to 100.0% for principals and from 0.0% to 100.0% for new teachers. Principals and new teachers who received several days of training were most likely to report a frequency of principal support in the range of "always" (eight out of fifteen strategies each). Principals receiving no training and new teachers receiving information only were least likely to report the same (eight out of fifteen strategies and nine out of fifteen strategies, respectively).

Table 53

Views on Importance of Mentoring Support by Role and Amount of Training: Percentage Reporting Source as "Extremely" Important

Source of Support	Several Days		1/2 to 1 Day		Info Only		No Training	
	P	NT	P	NT	P	NT	P	NT
promotes mentoring for new teachers	94.4	85.7	92.3	100.0	95.0	100.0	70.6	100.0
organizes the pairing of new teachers and mentor	94.4	71.4	92.3	100.0	94.7	100.0	64.7	100.0
meets with mentors and new teachers jointly	50.0	71.4	61.5	33.3	50.0	0.0	35.3	33.3
encourages mentors to establish networks	66.7	71.4	69.2	66.7	47.4	0.0	29.4	66.7
encourages mentors to demonstrate teaching	55.6	85.7	53.8	33.3	40.0	0.0	47.1	100.0
provides time for new teachers to observe	66.7	85.7	61.5	0.0	45.0	0.0	58.8	66.7
provides training for mentors	50.0	57.1	46.2	33.3	35.0	0.0	31.3	0.0
encourages mentors to locate materials	44.4	85.7	46.2	66.7	30.0	0.0	47.1	33.3
encourages mentors to stress management	66.7	71.4	61.5	66.7	27.8	50.0	52.9	66.7
provides mentors with instructional strategies	44.4	71.4	38.5	66.7	15.8	0.0	41.2	50.0
encourages mentors to show sharing and caring	83.3	71.4	69.2	100.0	60.0	0.0	64.7	33.3
encourages mentors to help new teachers grow	81.3	71.4	76.9	66.7	50.0	0.0	58.8	33.3
encourages mentors to recognize performance	61.1	57.1	61.5	66.7	31.6	50.0	23.5	33.3
encourages mentors to give feedback	72.2	57.1	76.9	33.3	60.0	50.0	47.1	66.7
believes that mentoring contributes to success	100.0	57.1	76.9	66.7	80.0	0.0	70.6	66.7

Note. P = Principal (n = 75); NT = New Teacher (n = 15).

Likewise, Table 54 presents the percentages of responses which rate the frequency of principal support of mentoring as "always" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the range of frequently to always (ratings of 4 or 5). Taken as a whole, principals agreed more strongly than did new teachers that their support mechanisms were always offered on twenty-nine of sixty items. Percentages ranged from 5.9% to 88.2% for principals and from 0.0% to 100.0% for new teachers. Principals receiving several days of training were most likely to report a frequency of support in the range of "always" (eleven out of fifteen strategies). Those receiving no training were least likely to report the same (fourteen out of fifteen strategies). New teachers receiving one-half to one full day of training were most likely to report a frequency of principal support in the range of "always" (eight out of fifteen strategies), while those receiving information only were least likely to agree (nine out of fifteen strategies).

Table 54

Views on Frequency of Mentoring Support by Role and Amount of Training: Percentage Reporting Source as "Always" Occurring

Source of Support	Several Days		1/2 to 1 Day		Info Only		No Training	
	P	NT	P	NT	P	NT	P	NT
promotes mentoring for new teachers	88.2	50.0	84.6	100.0	73.7	50.0	58.8	100.0
organizes the pairing of new teachers and mentor	94.1	16.7	92.3	100.0	89.5	0.0	58.8	66.7
meets with mentors and new teachers jointly	5.9	16.7	38.5	33.3	22.2	0.0	11.8	33.3
encourages mentors to establish networks	31.3	33.3	33.3	50.0	21.1	0.0	11.8	33.3
encourages mentors to demonstrate teaching	29.4	33.3	23.1	33.3	26.3	0.0	11.8	66.7
provides time for new teachers to observe	47.1	33.3	23.1	0.0	21.1	50.0	17.6	66.7
provides training for mentors	23.5	16.7	23.1	33.3	21.1	0.0	11.8	0.0
encourages mentors to locate materials	41.2	33.3	23.1	66.7	26.3	0.0	11.8	33.3
encourages mentors to stress management	47.1	33.3	30.8	66.7	31.6	0.0	17.6	33.3
provides mentors with instructional strategies	23.5	33.3	15.4	33.3	16.7	0.0	11.8	50.0
encourages mentors to show sharing and caring	75.0	33.3	46.2	66.7	57.9	0.0	25.0	33.3
encourages mentors to help new teachers grow	52.9	33.3	38.5	66.7	44.4	0.0	29.4	33.3
encourages mentors to recognize performance	29.4	33.3	30.8	66.7	36.8	0.0	5.9	0.0
encourages mentors to give feedback	41.2	33.3	38.5	33.3	36.8	50.0	17.6	33.3
believes that mentoring contributes to success	76.5	33.3	84.6	66.7	63.2	0.0	37.5	66.7

Note. P = Principal (n = 75); NT = New Teacher (n = 15).

Summary of Mentoring Support

When considering the mentoring supports of a principal, the difference in overall perceptions of new teachers and principals with regard to importance and frequency of those supports are more widely different than for any other scale. When considering the impact of program choice on those perceptions, no significant differences were found in the perceptions of principals or new teachers. However, when considering the impact of amount of training, significant differences were found in principals' perceptions regarding frequency of support.

Principal perceptions of both importance and frequency of support of mentoring were strongest for those using a locally developed program. Those using ETS Pathwise were least likely to agree that the principals' support of mentoring was extremely important or that it occurred most frequently. Principals receiving several days of training were also most likely to label their support as "extremely" important and as "always" occurring. Those receiving no training were least likely to agree.

Based upon survey results, new teachers using the Santa Cruz program were most likely to label principals' support of mentoring as "extremely" important, and those using Great Beginnings were most likely to agree that this support "always" occurred. Those using a locally developed program were least likely to agree on either. Based upon interview results, the new teacher experiencing a locally developed model most often labeled the principal's support as extremely helpful. The new teacher experiencing the ETS Pathwise program most often identified the principal's support as occurring frequently. New teachers receiving several days of training were also most likely to agree

on the extreme importance of principal support, while those receiving one-half to one full day of training were most likely to agree on the greater frequency of that support. Those teachers receiving Information Only were least likely to agree on the extreme importance or greater frequency of principal support.

Views of Collegiality

Overview

The final four items of the Internet survey were grouped into a scale that measured collegial support. This scale asks participants to consider those actions of the principal that show caring and compassion for them as new colleagues. The items comprising this scale addressed the importance of and frequency with which the principal

- includes new teachers in school related activities.
- tries to make new teachers feel as though they are part of the school team.
- shows genuine actions of sharing and caring to new teachers.
- promotes collegiality by being involved in the daily life of new teachers.

Using Likert-type response options, subjects responded to the importance of principal support of collegiality using a five-point scale. Respondents suggested that principal support was Extremely Important (5), Rather Important (4), Somewhat Important (3), Hardly Important (2), or Not at all Important (1). The frequency of principal's use of mechanisms of support was rated using a similar five-point scale. Respondents identified the frequency of principal supports as Always (5), Frequently (4), Occasionally (3), Seldom (2), or Not at all (1).

Table 55 provides an overview of participant responses related to Collegial Support using the scale means for principals and new teachers. The mean values suggest that principals and new teachers perceive principals' support in this area to be extremely

important (scale ratings in the range of 5). Both groups suggested that these mechanisms of support occur frequently to always (scale ratings in the range of 4 or 5). Notably, principals and new teachers agreed more closely on the importance of supports than on the frequency of those supports, with a difference in mean scores of .07 and .25 respectively. The mean differences in perceptions of frequency were found to be statistically significant at the .05 *alpha* level (see Table 34).

Table 55

Results on the Collegiality Support Scale by Role

Role	**Importance**		**Frequency**	
	M	*SD*	*M*	*SD*
Principal	4.85	.256	4.71	.417
New Teacher	4.78	.558	4.46	.854
Total	4.84	.328	4.67	.521

Note. Principal, $n = 66$; New Teacher, $n = 14$.

In order to examine the perceptions related to the scale of collegiality more closely, a multivariate analysis of variance (MANOVA) was conducted for principal responses with the dependent variables of importance and frequency and the independent variables of induction program choice and amount of training (see Table 56). Significant differences were noted in the perceptions of principals with regards to frequency of collegial supports when considering the choice of induction program (see Table 56). Bonferroni post hoc tests were conducted to investigate if significant differences among the four induction programs (ETS Pathwise, Great Beginnings, Santa Cruz, or locally developed) could be identified, but these analyses did not suggest an interaction.

Additional significant differences in principal perceptions were identified in both the importance and frequency of collegial supports, when considering the amount of training they had received (see Table 56). Bonferroni post hoc tests were conducted to investigate if significant differences among the four levels of training (several days, 1/2 to 1 day, information only, or no training) could be identified. The results of these analyses identified an interaction with regard to frequency between One-half to One Day Training and No Training as well as between Information Only and No Training.

Lastly, a significant difference was identified in the perceptions of principals around frequency of collegial support when considering both induction program and amount of training (see Table 56). Bonferroni post hoc tests were conducted to investigate if significant differences among the four induction programs (ETS Pathwise, Great Beginnings, Santa Cruz, and locally developed) and the four levels of training (several days, 1/2 to 1 day, information only, or no training) could be identified. These analyses did not suggest areas of interaction, however. These results suggest that the amount of training experienced by a principal has a significant positive impact on their perceptions of the importance and frequency of collegial supports. Principals receiving the most training are most likely to perceive their mechanisms of collegial support as more important and more frequent. Additionally, the type of induction program chosen in a district or school has a significant impact on the principals' perceptions of the frequency of that support. Thus, in response to the third research question, there is a significant difference in principals' perceptions of collegial supports, according to the choice of induction program and reported level of principal training.

Table 56

MANOVA Results for Induction Program and Amount of Training on Principal Perceptions of Importance and Frequency on the Collegiality Support Scale

Group	Principal Importance		New Teacher Importance		Principal Frequency		New Teacher Frequency	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Program								
ETS Pathwise	4.83	.326	4.79	.401	4.59	.605	4.33	1.092
Great Beginnings	4.82	.261	4.50	1.000	4.70	.349	4.38	.946
Santa Cruz	4.90	.147	5.00	.000	4.80	.291	4.92	.144
Locally Developed	4.83	.334	5.00	-	4.75	.408	4.25	-
Training								
Several Days	4.93	.147	4.50	.837	4.75	.331	3.92	1.103
½ to 1 Day	4.92	.158	5.00	.000	4.81	.341	4.92	.144
Info Only	4.84	.224	4.88	.177	4.82	.218	4.75	.354
No Training	4.72	.384	5.00	.000	4.49	.615	4.92	.144

Tests of Between-Subjects Effects

Source	**DV**	***SS***	***df***	***MS***	***F***	***p***
Program	Importance	.186	3	.062	1.071	.370
	Frequency	2.197	3	.732	8.950	*.000
Training	Importance	.792	3	.264	4.553	*.007
	Frequency	3.151	3	1.050	12.836	*.000
Program x Training	Importance	.882	8	.110	1.901	.080
	Frequency	5.025	8	.628	7.677	*.000
Error	Importance	2.959	51	.058		
	Frequency	4.173	51	.082		
Total	Importance	1555.875	66			
	Frequency	1476.750	66			

Note. Principal, $n = 66$; New Teacher, $n = 14$.
*$p \leq .05$.

Results of the telephone interviews with a new teacher representing each mentoring model suggest two primary themes regarding collegial supports. New teachers

valued the supports their principals provided by visiting/observing their classrooms and by providing mechanisms to make them feel included in their new school. Strategies for making new teachers feel welcomed included

- welcoming them
- including them in school activities
- making them feel a part of the school team
- showing actions of caring and sharing
- creating a feeling of a family team
- thanking them for their efforts
- encouraging teamwork

When asked to identify the three most helpful collegial support strategies utilized by their principals, each of the four new teachers identified two strategies that made them feel more included in the life of the school community. The Great Beginnings teacher reported feeling "nervous about keeping up with everything that was already started since I came in in January." She further noted the importance of the princpal and staff "showing you they feel you are qualified enough to do that". The Santa Cruz teacher addressed being included in the "family feeling" of the staff: "… making me feel like a family, a team. Feeling welcomed to attend all school activities. Just giving thanks for our efforts and for what we do." The teacher experiencing a locally developed model noted that her principal helped make her and other teachers feel more involved by "Extending well wishes to staff members through newsletters and school announcements

and providing new teachers with opportunities to involve themselves in school activities. For example, the PTA, different kinds of clubs and SCA."

Regarding classroom visits, three of the four teachers mentioned specific efforts towards collegiality their principals take to provide feedback through visits and observations. Only the Santa Cruz teacher did not mention this strategy during this portion of the interview; however, she did mention the importance of her principal thanking staff for their efforts. The ETS Pathwise teacher stated that it was extremely helpful for her principal to conduct "observations, you know, and being candid about what I did right and what I did wrong and how I can improve." The Great Beginnings teacher said that feedback is extremely important to her: "… so you know where you stand. Constant feedback, I guess, would be the best way to put it; some sort of regular feedback." The teacher experiencing a locally developed model suggested that is important "Visiting and conversing with new teachers to see how they are progressing."

Item-level Results by Induction Program

To provide more details regarding the perceptions principals and new teachers held about the collegial sources of support, the following item level results are examined by induction program. To provide a measure of comparison, Table 57 presents the percentages of responses which rate the importance of principal support as "extremely" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the rather important to extremely important range (ratings of 4 or 5). Overall, principals agreed more than new teachers that the sources of collegial support were extremely important on seven of the

sixteen items. The range of principal responses ranged from 60.0% to 100.0%. New teacher responses ranged from 66.7% to 100.0%. Principals utilizing the Santa Cruz program were most likely to report that their means of support are extremely important (two out of four strategies). Those using the ETS Pathwise program were least likely to report the same (two out of four strategies). Of new teachers, those using the Santa Cruz or a locally developed program of induction were equally likely to report principal support as extremely important (four out of four strategies). New teachers using the Great Beginnings program were least likely to report the same (three out of four strategies).

Table 57

Views on Importance of Collegiality by Role and Induction Program: Percentage Reporting Source as "Extremely" Important

Source of Support	ETS Pathwise		Great Beginnings		Santa Cruz		Locally Developed	
	P	NT	P	NT	P	NT	P	NT
includes new teachers in school related activities	87.5	83.3	90.0	75.0	100.0	100.0	90.0	100.0
tries to make new teachers feel part of the school	93.8	83.3	100.0	75.0	100.0	100.0	90.0	100.0
shows genuine actions of sharing and caring	87.5	83.3	95.0	75.0	100.0	100.0	90.0	100.0
promotes collegiality by being involved	68.8	66.7	60.0	75.0	68.2	100.0	70.0	100.0

Note. P = Principal (n = 75); NT = New Teacher (n = 15).

With regard to perceptions about the frequency of collegial support, Table 58 presents the percentages of responses which rate the frequency of principal support as "always" from the response options. This is reflective of the fact that responses related to

principal support were largely positive and most responses were in the range of frequently to always (ratings of 4 or 5). Overall, principals labeled the frequency of supports higher than new teachers on seven of the sixteen items. Percentages ranged from 37.5% to 100.0% for principals and from 50.0% to 100.0% for new teachers. Principals utilizing the Santa Cruz program were most likely to report a frequency of support in the range of "always" (three out of four strategies), while their colleagues using the ETS Pathwise approach were least likely to report the same (three out of four strategies). New teachers experiencing supports through a locally developed program were most likely to report a frequency of principal support in the range of "always" (four out of four strategies). Those new teachers utilizing the Santa Cruz program were in very close overall agreement. New teachers using the ETS Pathwise program were least likely to report principal support in the range of "always" (three out of four strategies).

Table 58

Views on Frequency of Collegiality Support by Role and Induction Program: Percentage Reporting Source as "Always" Occurring

Source of Support	ETS Pathwise		Great Beginnings		Santa Cruz		Locally Developed	
	P	NT	P	NT	P	NT	P	NT
includes new teachers in school related activities	87.5	83.3	84.2	75.0	95.2	100.0	90.0	100.0
tries to make new teachers feel part of the school	87.5	66.7	100.0	75.0	95.0	100.0	90.0	100.0
shows genuine actions of sharing and caring	75.0	66.7	84.2	75.0	90.5	66.7	80.0	100.0
promotes collegiality by being involved	37.5	50.0	47.4	50.0	47.6	100.0	60.0	100.0

Note. P = Principal (n = 75); NT = New Teacher (n = 15).

Item-level Results by Amount of Training

To provide more details regarding the perceptions principals and new teachers held about the collegial sources of support, the following item level results are examined by amount of training. To provide a measure of comparison, Table 59 presents the percentages of responses which rate the importance of principal support as "extremely" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the rather important to extremely important range (ratings of 4 or 5). Overall, principals were more likely than new teachers to label their support as extremely important on five of the sixteen items. Percentages ranged from 47.1% to 100.0% for principals and 71.4% to 100.0% for new teachers. Those principals receiving several days of training were most likely to rate their support as extremely important (four out of four strategies). Principals receiving no

training were least likely to report the same (four out of four strategies). New teachers receiving either one-half to one full day of training or no training at all were equally likely to report principal support in the range of "extremely" important (four out of four strategies). Those new teachers receiving several days of training were least likely to report the same (three out of four strategies).

Table 59

Views on Importance of Collegiality Support by Role and Amount of Training: Percentage Reporting Source as "Extremely" Important

Source of Support	**Several Days**		**1/2 to 1 Day**		**Info Only**		**No Training**	
	P	NT	P	NT	P	NT	P	NT
includes new teachers in school related activities	100.0	71.4	92.3	100.0	90.0	100.0	88.2	100.0
tries to make new teachers feel part of the school	100.0	71.4	100.0	100.0	100.0	100.0	88.2	100.0
shows genuine actions of sharing and caring	100.0	71.4	100.0	100.0	95.0	100.0	82.4	100.0
promotes collegiality by being involved	77.8	71.4	76.9	100.0	65.0	50.0	47.1	100.0

Note. P = Principal (n = 75); NT = New Teacher (n = 15).

Likewise, Table 60 presents the percentages of responses which rate the frequency of principals' collegial support as "always" from the response options. This is reflective of the fact that responses related to principal support were largely positive and most responses were in the range of frequently to always (ratings of 4 or 5). Taken as a whole, principals agreed more often than teachers that their supports towards collegiality always occurred on five of the sixteen items. Percentages ranged from 29.4% to 100.0%

for principals and from 33.3% to 100.0% for new teachers. Principals receiving information only were most likely to report a frequency of support in the range of "always" (two out of four strategies). Principals receiving no training were least likely to agree (four out of four strategies). New teachers most likely to report a frequency of principal support in the range of "always" were divided equally among those receiving 1/2 to 1 day of training, those receiving information only, and those receiving no training (three out of four strategies). Those teachers receiving several days of training were least likely to report a frequency in the range of "always" (four out of four strategies).

Table 60

Views on Frequency of Collegiality Support by Role and Amount of Training: Percentage Reporting Source as "Always" Occurring

Source of Support	**Several Days**		**1/2 to 1 Day**		**Info Only**		**No Training**	
	P	NT	P	NT	P	NT	P	NT
includes new teachers in school related activities	94.1	66.7	84.6	100.0	94.7	100.0	82.4	100.0
tries to make new teachers feel part of the school	94.1	50.0	100.0	100.0	100.0	100.0	81.3	100.0
shows genuine actions of sharing and caring	82.4	33.3	92.3	100.0	94.7	100.0	64.7	66.7
promotes collegiality by being involved	47.1	33.3	69.2	66.7	47.4	50.0	29.4	100.0

Note. P = Principal (n = 75); NT = New Teacher (n = 15).

Summary of Collegiality

When considering the collegial supports of a principal, both principal and new teacher survey respondents agreed far more on the importance of those supports than they

did on the frequency. Program choice was found to have a significant impact on the principals' perceptions regarding frequency of support. Likewise, the amount of training had a significant influence on principals' perceptions of both importance and frequency of support. No such differences were noted in new teacher perceptions.

Based upon survey results, those principals using the Santa Cruz program were most likely to agree on both the "extremely" important nature of their collegial supports and that these same supports occurred "always". Those using the ETS Pathwise program were least likely to agree with those same statements. Principals who received several days of training were most likely to agree that their support was "extremely" important. Those who had received only information about the program were most likely to state that their support occurred "always". Principals receiving no training were least likely to rate their support as "extremely" important or as "always" occurring.

New teachers experiencing induction programs based on the Santa Cruz model were most likely to suggest that their principals' collegial support was "extremely" important, while those experiencing a locally developed model were most likely to state that these "always" occurred. Teachers in Great Beginnings programs were least likely to agree that their principal's support is extremely important. The frequency of principal action was ranked lowest by those utilizing ETS programs. New teachers receiving information only or no training were more likely to agree on their principals' support, labeling them as "extremely" important and "always" occurring. Those teachers receiving several days of training were least likely to label support in such a manner.

Chapter Summary

To gather information about the perceptions held regarding principals' support of new teacher induction, both an Internet survey and a telephone interview were conducted. The results of both sets of data were analyzed and examined for statistically significant facts and thematic findings. Overall, principals perceived that their actions of support were more important and that they occurred more frequently than did new teachers. In general, perceptions of principals and new teachers were found to be significantly different regarding the importance of administrative support and the frequency of administrative support, mentoring support, and collegiality.

Furthermore, based upon MANOVA results, significant differences in the perceptions of principals regarding both the importance and frequency of administrative supports, importance and frequency of professional development support, the frequency of mentoring support, and the importance and frequency of collegial support were found when considering the amount of training that a principal received. Significant differences were noted in the perceptions of principals with regards to frequency of collegial supports when considering the choice of induction program.

Based upon information taken from the telephone interviews, five primary themes regarding principal support emerged. Principals and new teachers identified the following mechanisms to be the most helpful in providing new teachers support:

- Matching the new teacher with an appropriate mentor
- Visiting the new teacher's classroom to observe, provide feedback, and offer encouragement

- Providing structures for staff development and staff meetings
- Showing actions of caring and support and making the new teacher feel included
- Providing support and training for the new teacher and mentor alike

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this chapter is to present a discussion of the findings of this study on the perceptions of the Virginia elementary principal's role in supporting new teacher induction. An online survey was administered throughout the commonwealth of Virginia to capture the perceptions of both new teachers and principals regarding the importance and frequency of thirty-nine structures of principal support. Follow-up telephone interviews were conducted in an effort to confirm those findings. The first section, Discussion of Findings, examines data gathered from the survey and interviews addressing each of the three research questions and how those data relate to the literature. Other sections of this chapter include Implications for Practice, Limitations of the Study, Recommendations for Future Research, and Summary.

Discussion of Findings

Elementary principals and new teachers across the commonwealth of Virginia were presented a list of thirty-nine Internet survey items to gather their perceptions regarding the importance assigned the various types of principal support and the perceived frequency of that support (see Appendix A and Appendix B). The survey items were designed to measure four categories of support: administrative, professional development, mentoring support, and collegiality. The Internet survey was administered in late spring and summer of 2008. A total of seventy-seven elementary principals and

sixteen new teachers participated. Because the number of subjects responding to the initial survey was lower than anticipated, a decision was made to follow-up on surveys and to confirm the findings via a telephone interview (see Appendix F). A purposeful sample of four principal and new teacher pairs representing the four mentoring models (ETS Pathwise, Great Beginnings, Santa Cruz, and locally developed) were interviewed. Responses from both the survey and the telephone interviews were analyzed to examine differences between and among principal and new teachers' reported perceptions.

Research Question 1

Do teachers' perceptions differ from principals' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction?

A review of the extant literature suggests that principals and new teachers agree more often regarding the importance of mechanisms of principal support than they do regarding the frequency of principals' actions (Brock & Grady, 1998; Carter, 1990; Golden, 2003; Gurule-Gonzales, 1995; Martin, 1997; Powell, 1992; and Siefert & Beck, 1981). The data resulting from the Internet survey in this study align closely to that literature. Principals' and new teachers' perceptions were more closely aligned regarding importance than frequency. The average difference in mean responses of principals and new teachers was .21 for importance and .35 for frequency. Differences in means for importance were lower than difference in frequency on twenty-eight of thirty-nine strategies. New teachers rated only three support strategies more important (providing training for mentors, providing mentors with instructional strategies to use with new

teachers, and promoting collegiality by being involved in the daily lives of new teachers) and only one strategy as more frequent (communicating a common vision for the school) than did principal respondents.

New teachers and principals agreed closely on strategies ranked as most/least important and most/least frequent. Both groups rated providing professional journals and current educational articles as least important and making new teachers feel as though they are part of the school team as most important. Including new teachers in school related activities and making them feel as though they are part of the school team were ranked as most frequent by both groups.

In an effort to examine differences, statistical analyses of participant responses were conducted with those survey responses grouped by the four areas of support: administrative support, professional development, mentoring support, and collegiality. Significant differences between new teacher and principal perceptions related to importance were found only in the area of administrative support ($p = .002$). Principals perceived that administrative supports were more important than did the new teachers. With regards to frequency, differences in perceptions of the two groups of participants in three of the four areas were found to be significant. New teacher and principal responses differed significantly in the areas of administrative support ($p = .049$), mentoring support ($p = .021$), and collegiality ($p = .027$). In all three instances, principals perceived that these supports occurred more frequently than did the new teachers.

An item analysis of the assigned values for importance and frequency revealed that the mean responses of principals and new teachers were found to be significantly

different at the .05 *alpha* level in 28.2% (n = 11) of items as relates to importance. In each instance, the principals rated the importance of the item higher than did the new teachers. Mean principal and new teacher responses related to the frequency of support were found to be significantly different in 23.1% (n = 9) of items. Again, the principals rated the frequency of the item higher than did the new teachers in each instance.

Participant responses in the telephone interviews largely confirmed the findings of the Internet survey. The one difference was the higher rating of new teachers' perceptions of the frequency of action on the part of the principal. Principals identified 85.4% of noted strategies as extremely helpful. They further identified those actions as occurring frequently 56.2% of the time. New teachers reacted similarly, identifying 75.0% of noted principal's actions as extremely helpful. They also stated that those actions occur frequently 62.5% of the time.

In the interviews, only the new teacher report of frequency of principals' actions differs from findings of the Internet survey. This may be due in part to the fact that new teachers rated only the frequency of activities that they had already identified as most helpful. Also, they may have reported only those strategies that they personally have experienced. Additionally, this could be due to the nature of the telephone interview and the fact that the principal identified the new teacher who would participate in the interview. While anonymity is maintained in this actual dissertation writing, the principal and new teacher telephone interview pair knew who each was.

Thus, in answer to question 1 of this study, there are significant differences in some principal and new teacher perceptions of principals' support. These are more often

found in the perceptions regarding frequency than regarding importance. These findings mirror those of Carter's work (1990), in which principals and new teachers differed on only six of twenty-seven strategies for importance but on thirteen of twenty-seven strategies for frequency. Noteworthy among the support efforts reported in the current study were those receiving strong ratings from both groups for most important and most frequent: making new teachers feel as though they are part of the school team and including them in school related activities.

Overall, differences between perceptions of principals and new teachers in three of the four areas of support (administrative support, mentoring support, and collegiality) were found to be statistically significant. These findings must be considered in light of the extant literature. Several researchers suggested that the principal often becomes a building manager instead of an instructional leader (Martin, 1997) or that he or she is disconnected from the new teachers (Carter, 1990). Teachers often ask for even more observation and feedback than the principal is prepared to provide (Bohman, 1988). Perhaps, this disconnect or failure to lead instruction is the barrier between principals' beliefs and actions that keeps new teachers from perceiving a higher frequency of action on the part of the principal.

Nationally, 37.4% of principals have received post-master's training (Battle, 2009). Among the Virginia survey respondents, only 15.6% had achieved these higher degrees and training. Despite the difference in the two groups, the results of this study mirror the literature on perceptions of principals' frequency of support of new teachers. It is reasonable to think that those principals, both nationally and in Virgina, earning

advanced degrees have had opportunities to gain knowledge and skills in becoming better instructional leaders. This may account somewhat for the difference in perceptions between principals and new teachers regarding the frequency of principal support.

Other researchers (Brock & Grady, 1998, Golden, 2003, and Martin, 1997) suggest that building level staff other than the principal (mentor, lead teacher, department chair, etc.) are often the primary support for a new teacher. The principals may perceive that they perform many of the important tasks of induction, while, in reality, the work is delegated to another staff member. New teachers may not relate delegation with actual action and may report a lower frequency of support on the part of their principals. The results of the telephone interviews in this current study confirm that the presence of a strong mentor can impact perceptions of the principal's actions.

Research Question 2

Is there a difference in teachers' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction, according to the type of induction program and the reported level of teacher training?

Due to the lower survey return rate from new teachers, it was not possible to determine statistically significant differences among new teacher perceptions in the same manner as was possible with principal perceptions. Responses obtained from the telephone interviews largely confirm the data obtained from the Internet survey. Therefore, survey item analyses and telephone interviews are considered collectively to inform the discussion of new teachers' perceptions and provide information related to any practically significant differences. An examination of transcripts from telephone

interviews suggests several themes regarding new teachers perceptions of necessary principal supports (see Appendix I):

- Matching the new teacher with an appropriate mentor
- Visiting the new teacher's classroom to observe, provide feedback, and offer encouragement
- Providing structures for staff development and staff meetings
- Showing actions of caring and support and making the new teacher feel included
- Providing support and training for the new teacher and mentor alike

The number of responses from each new teacher in each of those categories of support is similar across induction programs. Those new teachers experiencing the Santa Cruz and locally developed models cited one additional staff development/meeting strategy and one additional sharing/caring strategy. The Great Beginning new teacher cited an additional strategy of training. A review of data from telephone interviews reveals that the perceptions of the Great Beginning new teacher and principal pair differed more than perceptions of any other pair. The Santa Cruz respondents were most similar in their replies.

An item analysis of Internet survey results according to program type suggests overall that new teachers using the Santa Cruz program held stronger positive perceptions of the importance and frequency of principals' actions than did those using the ETS Pathwise, Great Beginnings, or locally developed models (see Figure 3). A similar analysis by amount of training suggests that those new teachers receiving information only about a given induction program held the least positive perceptions of principals'

support (see Figure 4). Those receiving several days of training or no training were most likely to realize the importance of principals' support, and those receiving one-half to one full day of training or no training were most likely to recognize the frequency of principal support.

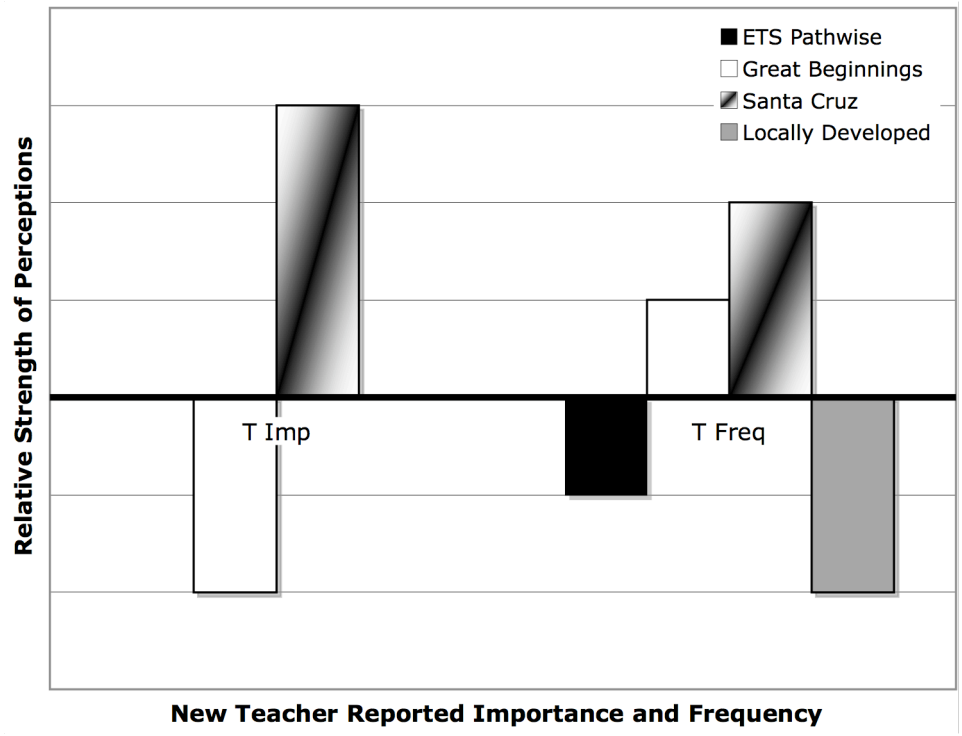


Figure 3. Overall New Teacher Perceptions of Importance and Frequency Disaggregated by Type of Program

Note. This figure does not represent percentages of responses; rather, it indicates a relative comparison of the magnitude (highest and lowest) of new teacher scale ratings regarding the importance and frequency of supports.

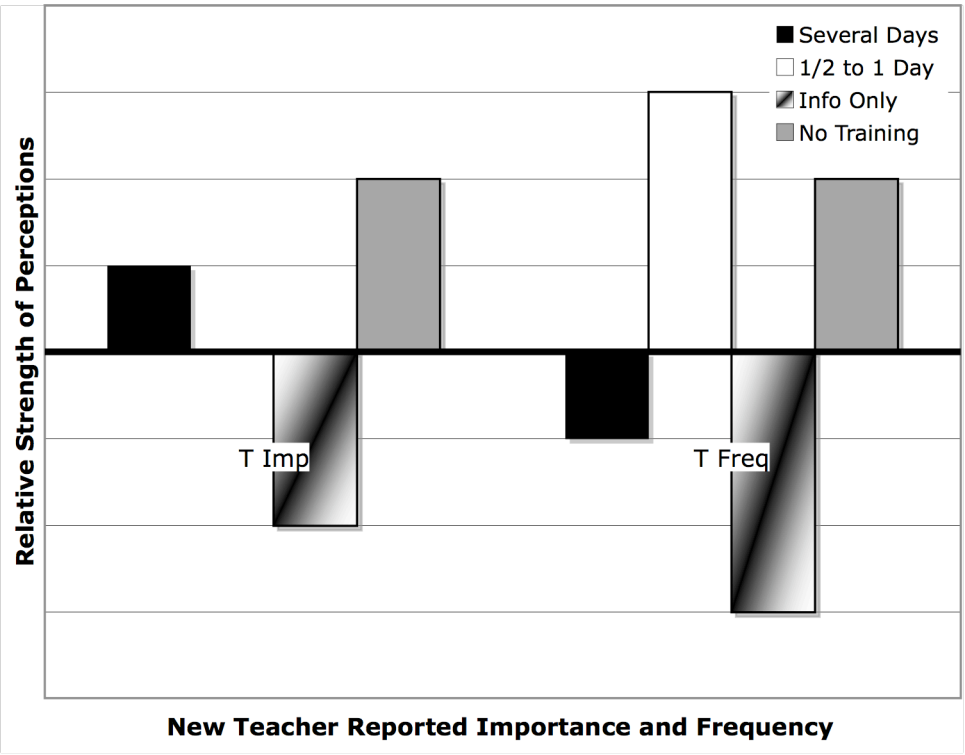


Figure 4. Overall New Teacher Perceptions of Importance and Frequency Disaggregated by Amount of Training

Note. This figure does not represent percentages of responses; rather, it indicates a relative comparison of the magnitude (highest and lowest) of new teacher scale ratings regarding the importance and frequency of supports.

New teachers' responses to the Internet survey were also examined according to four categories of support: administrative supports, professional development, mentoring support, and collegiality. With regard to administrative supports, new teachers who participated in a Santa Cruz induction program and those who received no training were most likely to report the importance and frequency of support. Teachers receiving a

locally developed program of induction and those who received information only about the specific induction program were least likely to hold the same perceptions.

New teachers participating in a locally developed program and those receiving several days of training were most likely to label their principals' professional development supports as extremely important. Those participating in the Santa Cruz program and those receiving one-half to one full day of training were most likely to suggest that this support always occurs. New teachers in the Great Beginnings program and those who received one-half to one full day of training or information only were least likely to label professional development support as extremely important. Those using ETS Pathwise and those receiving information only were least likely to answer that their principals always provided that support.

New teachers using the Santa Cruz program and those receiving several days of training were most likely to label principals' support of mentoring as extremely important. Those using Great Beginnings and those receiving one-half to one full day of training were most likely to agree that this support always occurred. Those using a locally developed program and those receiving information only were least likely to agree on either.

New teachers experiencing the Santa Cruz model and those receiving information only or no training were most likely to suggest that their principals' collegial support was extremely important. Those experiencing a locally developed model and those receiving information only or no training were most likely to state that these always occurred. Teachers in Great Beginnings programs and those receiving several days of training were

least likely to agree that their principal's support is extremely important. The frequency of principal action was ranked lowest by those utilizing ETS Pathwise programs.

The perceptions of new teachers may be impacted by the involvement of staff members in their buildings other than the principal. Researchers (Brock & Grady, 1998, Golden, 2003, and Martin, 1997) suggest that someone other than the principal (mentor, lead teacher, department chair, trusted colleague, etc.) is often the primary support for a new teacher. The principals may perceive that they perform many of the important tasks of induction, although the actual work is delegated to another staff member. New teachers may report a lower frequency of action on the part of their principals as a result. This was confirmed in principal and new teacher telephone interviews. The principal utilizing the Santa Cruz model was the first to suggest that she may not be the best person to interview because her role in new teacher induction was much less than that of the full-time mentor. Questions posed to each of the four new teachers during subsequent interviews revealed very similar feelings. Each new teacher stated that this was more or less true.

Seventy-five percent of new teacher Internet survey respondents reported receiving only one-half to one full day of training. Perhaps the question was misleading to some new teachers, who may have interpreted it to ask simply how much training about the program they had received. Perhaps, it was this definition of training that caused the data to appear somewhat skewed away from several days of training. It is possible that new teachers do not identify the day-to-day work with a mentor or job-embedded professional learning as part of their "training" within a given program.

Similarly, data related to amount of training and potential impact on perceptions may be skewed due to the overwhelming nature of the first-year experience itself, as cited in Veenman (1984). The most positive responses from new teachers surrounding the frequency of principal support were quite mixed, divided largely between several days of training, no training, and one-half to one full day of training. Interestingly, the lowest ratings regarding importance and frequency of principal support were from those new teachers receiving information only. Those new teachers, who reported receiving no training, provided more positive input than did this former group. New teachers may desire more time to prepare the classroom and to meet with the mentor than time spent in meetings that address whole group learning.

The first-year needs of new teachers are vastly different from those of their veteran colleagues, and learning should be differentiated to meet the needs of each individual new teacher (Glickman, 2002; Lindstrom and Speck, 2004; & Rowland, Sterling, and Wong, 1999). Programmed responses such as the Great Beginnings and ETS Pathwise approaches may not be as favorable to the needs of new teachers in this regard. This may account for the lower perceptions of importance and frequency of principal support from those experiencing these two programs and even from some new teachers who experience a locally developed program, depending on its focus and requirements.

Consideration should be given to the nature of the training that new teachers, mentors, and principals received. The principal utilizing the ETS Pathwise program suggested that training had occurred four years ago. It is possible that the knowledge and

skills of a principal and mentor wane after initial training, unless careful planning allows for meaningful followup and retraining over time. Likewise, the fidelity of training may change with subsequent years of implementation. While individuals from the host companies or organizations may conduct the original training, it is possible that districts incorporate some sort of train the trainer model and utilize their own staff to train others in the years that follow the original implementation. Thus, the quality of the new teacher, principal, and mentor training may differ considerably over the years that follow the initial program training. This could influence strongly the perceptions that new teachers hold regarding the quality of training that they receive.

Lastly, new teachers receiving information only may report a lower rate of importance and frequency of principal support because of other factors within the school itself. While new teachers may not receive specific training in a given program model, they may perceive the nurturing and collegial supports that have been reported as extremely important. New teachers and principals in both survey and interview responses have identified the most important factors of induction programs to be collegiality. Making a new teacher feel that he or she is part of the school team and including each in school activities were rated as the key features of a principal's support. Those new teachers receiving such supports may not perceive as strongly that they need any added training.

Research Question 3

Is there a difference in principals' perceptions, regarding the importance and frequency of Virginia elementary principals' role in supporting programs of induction, according to the type of induction program and the reported level of principal training?

Significant differences in the perceptions of principals regarding the importance and frequency of administrative supports ($p = .001$ for importance; $p = .022$ for frequency), professional development ($p = .015$ for importance; $p = .050$ for frequency), and collegiality ($p = .007$ for importance; $p = .000$ for frequency) were found when considering the amount of training that a principal received. Bonferroni post hoc tests indicated significant differences regarding importance between those principals receiving several days of training and those receiving no training at all. Additional Bonferroni post hoc tests identified an interaction with regard to frequency between one-half to one full day of training and no training as well as between information only and no training.

With regard to frequency of supports only, significant differences related to support for mentoring were noted when considering the amount of training that a principal received ($p = .003$). Bonferroni post hoc tests revealed a significant interaction between those receiving several days of training and those receiving no training. Significant differences were noted as well in the perceptions of principals with regards to frequency of collegial supports when considering the type of induction program utilized ($p = .000$) and the interaction between both induction program and amount of training ($p = .000$).

An item analysis by type of program and amount of training suggests that principals experiencing a locally developed program and those receiving several days of training were more likely to report a higher degree of importance and greater frequency of their actions of support (see Figure 5 and Figure 6). Principals receiving information only were also likely to report a greater frequency of actions. Those utilizing the ETS Pathwise program and those receiving no specific training were least likely to say the same. These results are confirmed in the telephone interviews to a large degree. The ETS Principal was the only principal to rank himself lower in frequency of action than his corresponding new teacher. Likewise, the principals utilizing the Santa Cruz and locally developed models were more likely to rank themselves slightly higher than the new teachers.

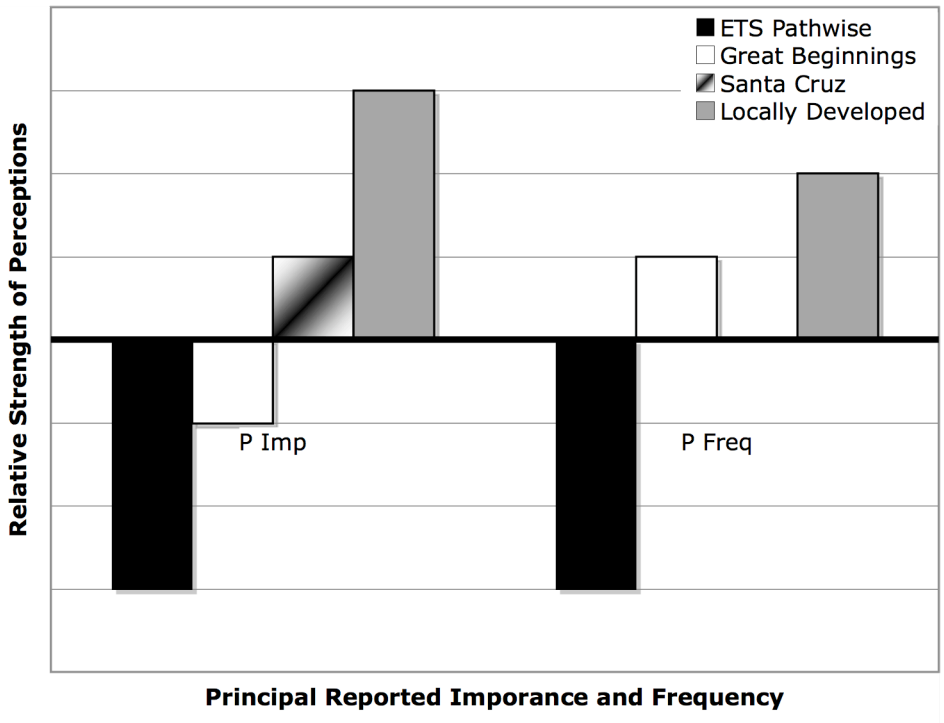


Figure 5. Overall Principal Perceptions of Importance and Frequency Disaggregated by Type of Program

Note. This figure does not represent percentages of responses; rather, it indicates a relative comparison of the magnitude (highest and lowest) of principal scale ratings regarding the importance and frequency of supports.

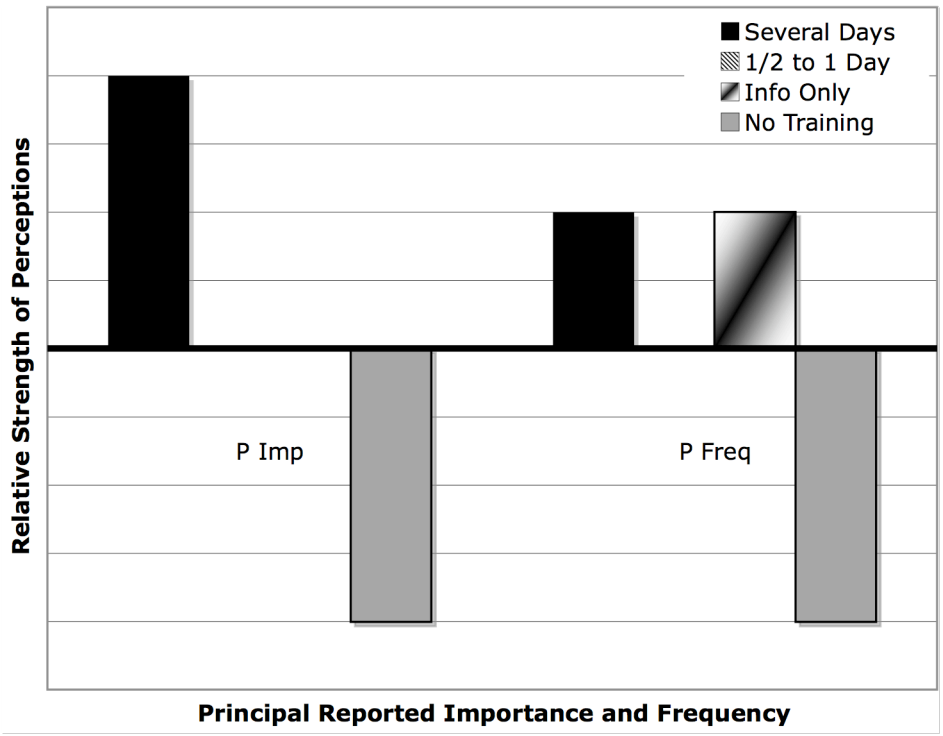


Figure 6. Overall Principal Perceptions of Importance and Frequency Disaggregated by Amount of Training

Note. This figure does not represent percentages of responses; rather, it indicates a relative comparison of the magnitude (highest and lowest) of principal scale ratings regarding the importance and frequency of supports.

Results of the Internet surveys and telephone interviews suggest that the amount of training a principal receives has a significant positive impact on their perceptions of the importance and frequency of administrative, professional development, and collegial supports. In like manner, the amount of training has a significant impact on the principals' perceptions of the frequency of support for mentoring, and the program used has a significant impact on the principals' perceptions of the frequency of collegial supports. Principals receiving several days of training are more likely to perceive their

mechanisms of administrative support as more important and more frequent, and their support of mentoring strategies as more frequent.

Thus, in response to the third research question, there are significant differences in some principals' perceptions of support of new teacher induction, when considered by amount of training and type of program. Training was found to impact significantly perceptions regarding the importance and frequency of Administrative, Professional Development, and Collegial supports. The amount of training also impacted views on the frequency of mentoring supports. The type of program used was found to impact significantly the reported frequency of collegial supports.

Perhaps these findings related to amount of training have to do with the level of understanding that a principal gains from attending training and spending time discussing quality induction programs and strategies. Wageman (1997), Darling-Hammond (2003), and Heller suggest the need for educational leaders (in this instance, principals) who possess the knowledge, skills, and attributes to guide a group to success, to improve the working conditions of school staff, and to build the capacity of the organization. Overall, principals, who received several days of training, were most likely to report both the importance and frequency of their actions of support. Perhaps, this is due to their feelings of readiness to support their new teachers or with their possession of the necessary knowledge and skills, all of which may have been obtained with increased levels of training. Conversely, perhaps it has as much to do with the attributes of caring and nurturing that create the desire within a principal to seek out added levels of training, in an effort to support their new teachers even better.

This may be particularly true in this study. While 37.4% of principals nationally have received post-master's training (Battle, 2009), only 15.6% of the Virginia survey respondents had achieved these higher degrees and training. Perhaps, increased levels of induction program training enabled some study principals to gain the necessary knowledge and skills to become stronger instructional leaders in their buildings (Martin, 1997) or, at least, to perceive that they had.

With regards to the lower ratings for importance and frequency reported by principals utilizing the ETS Pathwise program, perhaps it has to do with the nature of the program itself. Based upon conversations with a district assistant superintendent (personal communication, April 2009) and the interview with a principal using the model, the ETS Pathwise program focuses heavily on paperwork. The program delivers a system of support based on direct observation and formal assessment of teaching performance (Bowman & Giebelhaus, 2002). It focuses on four key areas: planning for instruction, creating learning environments, teaching, and professionalism. This tends to de-emphasize the supports recognized by both principal and new teacher groups as most important (including new teachers in school related activities and making them feel as though they are part of the school team). It is possible that this lends itself to the disconnect between principal and new teacher referenced in the literature (Brock & Grady, 1998; Carter, 1990; Golden, 2003; Gurule-Gonzales, 1995; Martin, 1997; Powell, 1992; and Siefert & Beck, 1981).

Implications for Practice

The literature suggests that induction has the potential to decrease the attrition of new teachers. Wong (2003) reported that induction efforts in Lafourche Parish schools in Louisiana resulted in a drop in attrition rates from 51% to 7%. Ingersoll and Smith (2004) reported cuts in attrition rates from 20% to 9% with the introduction of basic induction, collaboration, teacher networking, and additional resources. Between 90% and 94% of new teachers in California, New Jersey, and Virginia, who were involved in recognized programs of induction, planned to return to teaching for a second year (Auten, Berry, Cochran, & Mullen, 2002; Holbert & Raffel, 2006; and Strong, 2005).

This study adds to the body of research by identifying those principal efforts that new teachers and principals identified as most important in the induction process. Trying to make new teachers feel as though they are part of the school team was ranked most important by both groups. The next most important support effort identified by principals was to show genuine actions of sharing and caring. New teachers reported the pairing of the new teacher with an appropriate mentor as second most important. Other important components of mentoring programs are well documented in the literature (Brock & Grady, 1998; Rowland, Sterling, & Wong, 1999; Hare & Heap, 2001; Horn, Sterling, & Subhan, 2002; and Watkins, 2005).

It is essential that districts and building level administrators review their induction programs for critical elements as suggested in the literature and in this current study, especially given the difficult economic decisions that lie before them. Those elements include the pairing of mentors with new teachers, the inclusion of new teachers in the life

of the school, and frequent observation and feedback by the principal. The maintenance of a well planned and well implemented program of induction must be carefully monitored to ensure the satisfaction and retention of qualified new teachers.

While new teacher and principal perceptions were found to be mostly similar regarding the reported importance of efforts, their perceptions regarding frequency of those same efforts were less similar. On survey returns, new teacher and principal perceptions regarding frequency were more disparate on twenty-eight of thirty-nine items. Principals' frequency of action was reported as lower by those new teachers experiencing a locally developed program. This may be due, in part, to a lack of knowledge on the part of the new teacher regarding just how the principal is involved in induction efforts. In telephone interviews with new teachers, it became apparent that the presence of a strong mentor may have influenced perceptions about the principals' actions on the part of the new teacher. Thus, it is important for principals to remember to maintain a frequent presence throughout the work with the new teachers and to be more transparent regarding support efforts. The research suggests that principals must be directly involved in and hold themselves primarily responsible for the process of inducting new teachers into the profession (Eckola, 2007; Heintz, 2007; and LeQuier, 2008).

The selection of induction program and the amount of training of principals are also important and must be considered carefully. Caution must be exercised in the implementation of packaged programs. Principals utilizing the ETS Pathwise program were the most likely to report their support efforts as less important and less frequent. In

contrast, those principals utilizing a locally developed program were more likely to suggest that their efforts were both important and frequent. Overwhelmingly, principals who received no training were most likely to rate their support efforts as less important and less frequent. In contrast, those principals receiving several days of training were the most likely to report that their supports were important. They, along with principals receiving information only, were most likely to report those efforts as occurring frequently.

Lastly, consideration should be afforded the amount of time spent on training new teachers in a specific model. Teachers who received only one-half to one full day of training were more likely to report positive perceptions of the frequency of principal supports. Those receiving several days of training as well as those receiving no training were most likely to suggest the importance of principal supports. Perhaps this indicates the overwhelming nature of the first-year experience (Veenman, 1984) in which new teachers feel the need to spend large amounts of time in their classroom preparing lessons and gathering necessary materials. While more typical induction programs allow for certain days in the summer and specific after-school activities as "new teacher training", it is critical that principals and districts honor new teachers' needs and identify ways to provide just-in-time training throughout the year. Based on the data from this study, training should include frequent opportunities for the new teacher to meet with an appropriately matched mentor, to become involved in the life and activities of the school, as well as to be observed and receive feedback on teaching performance from the principal.

Limitations of the Study

It may not be possible to generalize the findings of this research to the entire population of new teachers and principals throughout the commonwealth of Virginia for several reasons. While the intent of this study was to conduct a census across the state, that was not accomplished to the extent desired. The lower than anticipated return rate may not accurately reflect a broad enough range of the entire population. Of the potential 586 principals, 77 (or 13.1%) responded. Of the 62 teachers contacted, 16 (or 25.8%) responded.

The nature of voluntary participation, considered in light of this lower return rate, makes it difficult to suggest with certainty that the perceptions gathered in this research represent the thoughts and feelings of larger populations throughout the state. Thus, the responses of the sample that were captured in the data may not be fully representative of the state's principals and new teachers, as a randomized general sample would. Those individuals who chose to participate may, in some way, represent a skewed portion of the entire population, and it would not be appropriate to assume that all new teachers and principals hold the same points of view.

Additional statistical limitations must be considered. The difference in cell sample sizes decreases the overall power of the statistical analyses and significance of the variables within this current study. This increases the likelihood of Type II errors, and caution must be exercised in interpreting results. Campbell, Cook, and Shadish (2002) suggest that a difference in cell size impacts significance once that difference exceeds the ratio of 2:1. In this current study, 75 principal and 16 new teacher responses are

considered for overall perceptions regarding principal support of new teacher induction. Those numbers are then pared down to 66 principal and only 14 new teacher responses when examining those same perceptions disaggregated by type of induction program and amount of training. This could account for the larger variability and standard deviations noted in the data on new teachers' responses.

Likewise, limitations resulting from the telephone interviews and subject responses bias (Krosnick, Lavrakas, & Visser, 2000) should be considered. The interview responses contained within this study are those of specific individuals. As with much qualitative research, these responses are not indicative of the perceptions of all new teachers and principals throughout Virginia but are those of specific persons at the time of the interviews. The perceptions of new teachers as reported in the telephone interviews may be limited also due to the fact that the principal identified the new teacher who would participate in the interview. The principal and new teacher telephone interview pair knew who each was. New teachers may have been more cautious in responding to interview prompts as a result. While these interview findings can inform the overall results of the study, they should not be interpreted as representative of larger populations of new teachers and principals.

Various district policies also placed limitations on the potential sample, and whole groups of new teachers and principals were not able to participate. It is becoming increasingly difficult in the commonwealth of Virginia to conduct research in public school divisions. Many districts require potential researchers to complete research proposals and then may ask the researchers to change the scope of their work in some

specific way. In some instances, districts can actually make requests that contradict what other districts or the guiding institution of higher education has requested. This has occurred even in some districts that support large numbers of masters and doctoral student cohorts. Of 831 identified elementary schools, 184 schools in seven districts were excluded from this current study due to local district policies regarding external research activities. That number represents a loss of 22.0% of potential school sites. Those pockets of omitted individuals may have caused a significant shift in the data collected and subsequent statistical analyses.

Additional factors related to the timing of the survey, method of contacting potential participants, and Internet delivery of the survey may have limited the participation of some new teachers and principals. First, the timing of the original Internet survey occurred in late spring and early summer of 2008. This is a time in elementary schools when principals and new teachers are focused on state-wide, standardized testing and the end of year procedures. It is a most difficult time in the life of a school to ask for participation in a survey of this nature.

Second, the participants were contacted via Internet and email only. This may not prove to be the most efficient way of gathering survey data. A concrete, in-hand, paper request that resurfaces on one's desk time and time again may actually increase the return rate (Dillman, 2007). An email is easy to overlook or to toss aside, especially at the time of year when this survey was conducted. Another concern was the fact that only professional email addresses were used. If a home email address had been available, the

overall participation rate and especially the new teacher participation rate may have been higher.

The administration of the survey via Internet must be considered as well. Several potential respondents replied to invitation emails in order to alert the researchers that the message had not been delivered accurately or that it was delivered in some sort of indiscernible code. Still other potential participants may not have received the emails, as district email filters may have sent the messages directly to junk mail folders due to the large number of potential recipients. While efforts were made to send the invitation again, some participants may not have participated as a result of such difficulties in delivery.

Lastly, it is important to consider the lapse in time between the delivery of the Internet survey and the subsequent telephone interviews. While the overall timing of the two was at about the same time of the academic year, there was a lapse of approximately one calendar year. While one might assume that the responses should be about the same, given the timing within the academic year, it is important to consider that additional principal training during the period of that year may have occurred or that the training of the incoming new teachers may have been different in some way. This could have led to changes in perceptions on the part of both principals and new teachers.

Recommendations for Future Research

This research, especially the telephone interviews, points to the importance of the role of the mentor. It would be helpful to replicate this study, substituting the mentor's efforts in the place of the principal's. It would be necessary to give thought to the

individual items and to identify those constructs that are specific to the mentor's support of new teacher induction through a thorough review of the literature. Martin (1997), Brock and Grady (1998), and Golden (2003) found similar results in their studies and could inform future research. Other studies may serve as a starting point for research as well. Ashley (2008) and Mitchell (2008) reported the role of the mentor as a critical factor in new teachers' decisions to return to teaching for another year, and Powell (1992) focused on the principal's support of new teacher induction programs from the perspective of the mentor.

Other future studies could focus on qualitative research methodologies. Variations in the process of interviewing the new teachers and principals would provide meaningful data for consideration. Face to face interviews with each would allow the researcher to study the nuances of body language and intonation, allowing an opportunity to interpret better those factors that may influence the responses of individuals who are interviewed. Likewise, a paired case study, with interviews conducted with the new teachers and principals at the same time, could be conducted. This would allow the researcher an opportunity to study the interaction between pairs of individuals and to interpret how various programs of induction might impact the new teacher/principal professional relationship. Melton's (2007) examination of the relationship between new teachers and their principals could serve as a resource for such a study.

Brock and Grady (2001), Cain (1984), and Tellez (1992) highlighted a link between strong administrative support and the level of satisfaction and success experienced by a new teacher. The dissertation research of Berry-Rickert (2007), Brown

(2007), Dangler (2007), and LoCasale-Crouch (2007) also points to a connection between induction programs, teacher efficacy, and teachers' classroom performance. It would be most telling to conduct a study of induction programs throughout the state and to measure their impact on new teachers' level of satisfaction and the achievement levels of the students in their classrooms. It would be particularly interesting to examine the level of fidelity of implementation of the same program across a variety of school divisions. This research would assist districts in identifying mechanisms of support and the level of training necessary to produce the best outcomes, measured as increased teacher efficacy and student learning. Again, effective components of quality programs of new teacher induction, as well as necessary attributes of training, could be identified for consideration and implementation throughout the state.

Lastly, it would be informative to review the many locally developed models throughout the state to identify commonalities and differences. Strategies contained within various programs could be compared to the list of common best strategies suggested by the literature. Critical components of induction programs could be identified and a description of best practices throughout the state could be provided. The work of LoCasale-Crouch (2007), Mitchell (2008), and Robertson (2008) in Virginia, North Carolina, and Los Angeles, respectively, could inform such future studies.

Summary

Based upon analyses of data collected during this research, there are significant differences in some principal and new teacher perceptions of the Virginia elementary principals' role in supporting programs of induction. These are found more often in the

perceptions regarding frequency than regarding importance. Principals' perceptions of the importance of administrative supports were significantly different from new teachers' perceptions, with principals reporting a higher degree of importance. With regards to frequency, differences in perceptions of the two groups were found to be significant in three of the four areas: administrative support, mentoring support, and collegiality. In all three instances, principals perceived that these supports occurred more frequently than did the new teachers. No significant differences were found in perceptions regarding the frequency of professional development supports.

Statistically significant differences were found among principals' perceptions of certain categories of support when considering the amount of training and the type of induction program utilized. The amount of training that a principal received had an impact on perceptions surrounding the importance and frequency of administrative, professional development, and collegial supports. Significant differences regarding only the frequency of support for mentoring were noted when considering the amount of principal training. Significant differences were noted in the perceptions of principals with regards to frequency of collegial supports as well when considering the type of induction program used.

While statistically significant differences in teachers' perceptions could not be determined in this study, there do appear to be practical differences based upon the type of induction program and the amount of new teacher program training. New teachers using the Santa Cruz program held stronger positive perceptions of the importance and frequency of principals' actions than did those using the ETS Pathwise, Great

Beginnings, or locally developed models. A similar analysis by amount of training suggests that those new teachers receiving information only about a given induction program held the least positive perceptions of principals' support. Those receiving several days of training and those receiving no training were most likely to realize the importance of supports, and those receiving one-half to one full day of training were most likely to recognize the frequency of supports.

These findings should be considered in the larger context of the extant literature on principal support of new teacher induction. The data examined here represent the perceptions of a small portion of the many principals and new teachers in the commonwealth of Virginia. Analyses of those data are somewhat limited due to the small return rate of the original Internet survey and the qualitative nature of the telephone interviews. Further research on this topic is suggested for a deeper understanding of the programs intended to support the induction of new teachers into the education profession.

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APPENDIX A

Survey Instrument & Demographic Questions for New Teachers

Principal Support of New Teacher Induction
New Teacher Survey

Taken from the work of Gurule-Gonzales, J. (1995). *Principals' and new teachers' perceptions about the principals' support of new teachers.* Doctoral Dissertation: University of California, Santa Barbara.

In the following questionnaire, there are statements that relate to your perceptions and feelings about the role of the principal and the importance and support that she or he provided during your first year of teaching, the academic year of 2007-2008. Within the ranges listed below, please indicate the number corresponding to how important each statement is to your work and the frequency of each type of support occurring to you or other new teachers in your building.

Importance
5 – Extremely
4 – Rather
3 – Somewhat
2 – Hardly
1 – Not at all

Frequency
5 – Always
4 – Frequently
3 – Occasionally
2 – Seldom
1 – Not at all

	Importance					Frequency				
Source of Support	Extremely	Rather	Somewhat	Hardly	Not at all	Always	Frequently	Occasionally	Seldom	Not at all
1. The principal communicates a common vision for the school.	5	4	3	2	1	5	4	3	2	1
2. The principal encourages participation in staff development and inservice programs.	5	4	3	2	1	5	4	3	2	1
3. The principal promotes staff development.	5	4	3	2	1	5	4	3	2	1
4. The principal emphasizes a philosophy of teaching and learning.	5	4	3	2	1	5	4	3	2	1
5. The principal nurtures new teachers and encourages professional growth.	5	4	3	2	1	5	4	3	2	1
6. The principal visits new teachers' classrooms.	5	4	3	2	1	5	4	3	2	1
7. New teachers receive useful feedback on teaching performances from my principal.	5	4	3	2	1	5	4	3	2	1
8. New teachers receive support on policies (i.e. discipline) from my principal.	5	4	3	2	1	5	4	3	2	1

9. The principal provides current information on legal school issues (i.e. safety and child abuse).	5	4	3	2	1	5	4	3	2	1
10. The principal provides adequate resources and materials (i.e. books, supplies) for new teachers.	5	4	3	2	1	5	4	3	2	1
11. The principal encourages new teachers to read professional journals and research.	5	4	3	2	1	5	4	3	2	1
12. The principal provides professional journals and current educational articles (i.e. Kappan, Leadership).	5	4	3	2	1	5	4	3	2	1
13. New teachers receive release time from my principal to attend professional training.	5	4	3	2	1	5	4	3	2	1
14. The principal provides funds for professional development (i.e. conferences and workshops).	5	4	3	2	1	5	4	3	2	1
15. The principal encourages new teachers to pursue professional improvement through college course work and commercial workshops.	5	4	3	2	1	5	4	3	2	1
16. The principal encourages support for new teachers from outside agencies (i.e. universities, professional development centers).	5	4	3	2	1	5	4	3	2	1
17. The principal provides specific staff development training programs for new teachers.	5	4	3	2	1	5	4	3	2	1
18. The principal believes and demonstrates that staff development is essential for new teachers professional growth.	5	4	3	2	1	5	4	3	2	1
19. The principal gives compliments on teaching performance to new teachers.	5	4	3	2	1	5	4	3	2	1
20. The principal believes and emphasizes that staff development contributes greatly to the success of new teachers.	5	4	3	2	1	5	4	3	2	1
21. The principal promotes mentoring for new teachers.	5	4	3	2	1	5	4	3	2	1
22. The principal organizes the pairing of new teachers with an appropriate mentor (i.e. same grade level, instructional background).	5	4	3	2	1	5	4	3	2	1

23. The principal meets with mentors and new teachers jointly, to discuss issues of concern (i.e. curriculum, progress and problems).	5	4	3	2	1	5	4	3	2	1
24. The principal encourages mentors to establish networks for new teachers.	5	4	3	2	1	5	4	3	2	1
25. The principal encourages mentors to demonstrate teaching lessons to new teachers.	5	4	3	2	1	5	4	3	2	1
26. The principal provides release time for new teachers to observe demonstration lessons.	5	4	3	2	1	5	4	3	2	1
27. The principal provides training for mentors (i.e. workshops and seminars).	5	4	3	2	1	5	4	3	2	1
28. The principal encourages mentors to locate materials for new teachers (i.e. district office and professional development centers).	5	4	3	2	1	5	4	3	2	1
29. The principal encourages mentors to stress time/student management to new teachers.	5	4	3	2	1	5	4	3	2	1
30. The principal provides mentors with instructional strategies to use with new teachers.	5	4	3	2	1	5	4	3	2	1
31. The principal encourages mentors to show genuine actions of sharing and caring to new teachers.	5	4	3	2	1	5	4	3	2	1
32. The principal encourages mentors to help new teachers grow professionally.	5	4	3	2	1	5	4	3	2	1
33. The principal encourages mentors to recognize new teachers teaching performance.	5	4	3	2	1	5	4	3	2	1
34. The principal encourages mentors to give feedback to new teachers on teaching performance.	5	4	3	2	1	5	4	3	2	1
35. The principal believes that mentoring contributes greatly to the success of new teachers.	5	4	3	2	1	5	4	3	2	1
36. The principal includes new teachers in school related activities.	5	4	3	2	1	5	4	3	2	1
37. The principal tries to make new teachers feel as though they are part of the school team.	5	4	3	2	1	5	4	3	2	1
38. The principal shows genuine actions of sharing and caring to new teachers.	5	4	3	2	1	5	4	3	2	1
39. The principal promotes collegiality by being involved in the daily life of new teachers.	5	4	3	2	1	5	4	3	2	1

For questions, 40 – 46 please check one box and/or provide the appropriate information.

40. Gender: _____Female _____Male

41. Age: _____20-29 _____30-39 _____40-49
_____50-59 _____60-69 _____Other

42. In which racial or ethnic group do you place yourself?
_____African American/Black _____Asian or Pacific Islander
_____Native American/American Indian _____Hispanic
_____White _____Other _____

43. Highest Degree Earned _____Bachelor's _____Master's _____Doctorate

44. Licensure Process: _____ Traditional _____ Alternate

45. Type of induction program adopted by your school/district – Check the one that most closely reflects the model you use.
_____ ETS Pathwise
(In the ETS Pathwise model, full-time teachers serve as mentors to new teachers and coordinate training, much of it delivered via computerized software.)
_____ Great Beginnings
(The Great Beginnings model is based primarily on a six-day summer institute and monthly meetings focused on predetermined topics and facilitated by mentors, who are also full-time teachers.)
_____ Santa Cruz/New Teacher Center Model
(The Santa Cruz model utilizes full-time mentors to implement protocols of teacher self-assessment and individual plan development.)
_____ other (please specify)_____

46. How much training (professional support/professional development) did you receive in this model?
_____ Several days of training
_____ One day of training
_____ 1/2 day of training
_____ Written information provided to me
_____ No training
_____ Other (please specify) _____

APPENDIX B

Survey Instrument & Demographic Questions for Principals

Principal Support of New Teacher Induction
Principal Survey

Taken from the work of Gurule-Gonzales, J. (1995). *Principals' and new teachers' perceptions about the principals' support of new teachers.* Doctoral Dissertation: University of California, Santa Barbara.

In the following questionnaire, there are statements that relate to your perceptions and feelings about the importance and support that you provided to your new teachers during the academic year of 2007-2008. Within the ranges listed below, please indicate the number corresponding to how important each statement is to your work and frequency of each type of support you provide.

Importance
5 – Extremely
4 – Rather
3 – Somewhat
2 – Hardly
1 – Not at all

Frequency
5 – Always
4 – Frequently
3 – Occasionally
2 – Seldom
1 – Not at all

	Importance					Frequency				
Source of Support	Extremely	Rather	Somewhat	Hardly	Not at all	Always	Frequently	Occasionally	Seldom	Not at all
1. I communicate a common vision for the school.	5	4	3	2	1	5	4	3	2	1
2. I encourage participation in staff development and inservice programs.	5	4	3	2	1	5	4	3	2	1
3. I promote staff development.	5	4	3	2	1	5	4	3	2	1
4. I emphasize a philosophy of teaching and learning.	5	4	3	2	1	5	4	3	2	1
5. I nurture new teachers and encourage professional growth.	5	4	3	2	1	5	4	3	2	1
6. I visit new teachers' classrooms.	5	4	3	2	1	5	4	3	2	1
7. I provide useful feedback on teaching performances from new teachers.	5	4	3	2	1	5	4	3	2	1
8. I provide support on policies (i.e. discipline) for new teachers.	5	4	3	2	1	5	4	3	2	1
9. I provide current information on legal school issues (i.e. safety and child abuse).	5	4	3	2	1	5	4	3	2	1

10. I provide adequate resources and materials (i.e. books, supplies) for new teachers.	5	4	3	2	1	5	4	3	2	1
11. I encourage new teachers to read professional journals and research.	5	4	3	2	1	5	4	3	2	1
12. I provide professional journals and current educational articles (i.e. Kappan, Leadership).	5	4	3	2	1	5	4	3	2	1
13. I provide release time for new teachers to attend professional training.	5	4	3	2	1	5	4	3	2	1
14. I provide funds for professional development (i.e. conferences and workshops).	5	4	3	2	1	5	4	3	2	1
15. I encourage new teachers to pursue professional improvement through college course work and commercial workshops.	5	4	3	2	1	5	4	3	2	1
16. I encourage support for new teachers from outside agencies (i.e. universities, professional development centers).	5	4	3	2	1	5	4	3	2	1
17. I provide specific staff development training programs for new teachers.	5	4	3	2	1	5	4	3	2	1
18. I believe and demonstrate that staff development is essential for new teachers professional growth.	5	4	3	2	1	5	4	3	2	1
19. I give compliments on teaching performance to new teachers.	5	4	3	2	1	5	4	3	2	1
20. I believe and emphasize that staff development contributes greatly to the success for new teachers.	5	4	3	2	1	5	4	3	2	1
21. I promote mentoring for new teachers.	5	4	3	2	1	5	4	3	2	1
22. I organize the pairing of new teacher with an appropriate mentor (i.e. same grade level, instructional background).	5	4	3	2	1	5	4	3	2	1
23. I meet with mentors and new teachers jointly, to discuss issues of concern (i.e. curriculum, progress and problems).	5	4	3	2	1	5	4	3	2	1
24. I encourage mentors to establish networks for new teachers.	5	4	3	2	1	5	4	3	2	1
25. I encourage mentors to demonstrate teaching lessons to new teachers.	5	4	3	2	1	5	4	3	2	1
26. I provide release time for new teachers to observe demonstration lessons.	5	4	3	2	1	5	4	3	2	1
27. I provide training for mentors (i.e. workshops and seminars).	5	4	3	2	1	5	4	3	2	1

28. I encourage mentors to locate materials for new teachers (i.e. district office and professional development centers).	5	4	3	2	1	5	4	3	2	1
29. I encourage mentors to stress time/student management to new teachers.	5	4	3	2	1	5	4	3	2	1
30. I provide mentors with instructional strategies to use with new teachers.	5	4	3	2	1	5	4	3	2	1
31. I encourage mentors to show genuine actions of sharing and caring to new teachers.	5	4	3	2	1	5	4	3	2	1
32. I encourage mentors to help new teachers grow professionally.	5	4	3	2	1	5	4	3	2	1
33. I encourage mentors to recognize new teachers teaching performance.	5	4	3	2	1	5	4	3	2	1
34. I encourage mentors to give feedback to new teachers on teaching performance.	5	4	3	2	1	5	4	3	2	1
35. I believe that mentoring contributes greatly to the success of new teachers.	5	4	3	2	1	5	4	3	2	1
36. I include new teachers in school related activities.	5	4	3	2	1	5	4	3	2	1
37. I try to make new teachers feel as though they are part of the school team.	5	4	3	2	1	5	4	3	2	1
38. I show genuine actions of sharing and caring to new teachers.	5	4	3	2	1	5	4	3	2	1
39. I promote collegiality by being involved in the daily life of new teachers.	5	4	3	2	1	5	4	3	2	1

For questions 40 – 50 please check one box and/or provide the appropriate information.

40. Gender: _____Female _____Male

41. Age: _____20-29 _____30-39 _____40-49
_____50-59 _____60-69 _____Other

42. In which racial or ethnic group do you place yourself?
_____African American/Black _____Asian or Pacific Islander
_____Native American/American Indian _____Hispanic
_____White _____Other _____

43. Highest Degree Earned _____Bachelor's _____Master's _____Doctorate

44. Years of elementary or secondary teaching experience PRIOR to becoming a principal? _____

45. Years of experience as a principal _____ At this site? _____

46. If you have served as a principal in other schools, which best describes the location in which you LAST served?
_____ I have not served as a principal in other schools.
_____ Served in SAME district
_____ Served in different public school district in same state
_____ Served in public school in a different state
_____ Served in a private school
_____ Other (please specify) _____

47. Positions other than teacher held before becoming a principal

Department head/grade level chair	how many years? _____
Assistant Principal	how many years? _____
Guidance counselor	how many years? _____
Library media specialist	how many years? _____
Curriculum specialist or coordinator	how many years? _____
Other district level specialist	how many years? _____

48. Type of induction program adopted by your school/district – Check the one that most closely reflects the model you use.
_____ ETS Pathwise
(In the ETS Pathwise model, full-time teachers serve as mentors to new teachers and coordinate training, much of it delivered via computerized software.)
_____ Great Beginnings
(The Great Beginnings model is based primarily on a six-day summer institute and monthly meetings focused on predetermined topics and facilitated by mentors, who are also full-time teachers.)
_____ Santa Cruz/New Teacher Center Model
(The Santa Cruz model utilizes full-time mentors to implement protocols of teacher self-assessment and individual plan development.)
_____ other (please specify)_____

49. How much training (professional support/professional development) did you receive in this model?
_____ Several days of training
_____ One day of training
_____ 1/2 day of training
_____ Information during principals' meeting
_____ Written information provided to me
_____ No training
_____ Other (please specify) _____

50. How frequently have you used this model?
_____ Have not used it before this year
_____ Used it frequently since training
_____ Used it often since training
_____ Used it rarely since training

For questions 51 – 56 please check one box and/or provide the appropriate information.

51. Setting: _____Urban _____Suburban _____Rural

52. School Enrollment _____

53. Ethnic Diversity (percentage of each):
_____African American/Black
_____Asian or Pacific Islander
_____Hispanic
_____Native American/American Indian
_____White
_____Other _____

54. Percentage of students qualifying for Free and/or Reduced Lunch: _____

55. Number of teaching staff _____

56. Number of new teachers _____

APPENDIX C

Research Subject Information Form

RESEARCH SUBJECT INFORMATION FORM

TITLE: PERCEPTIONS OF THE VIRGINIA ELEMENTARY PRINCIPAL'S ROLE IN SUPPORTING NEW TEACHER INDUCTION

VCU IRB NO.: HM11481

This consent form may contain words that you do not understand. Please ask the study staff to explain any words that you do not clearly understand. You may print a copy of this consent form to think about or discuss with family or friends before making your decision.

PURPOSE OF THE STUDY

The purpose of this research study is to determine any differences between the perceptions of new teachers and their principals regarding the principal's role in supporting new teacher induction.

You are being asked to participate in this study because you are either a new teacher (one year's experience) or a principal in a Virginia elementary school.

DESCRIPTION OF THE STUDY AND YOUR INVOLVEMENT

If you decide to participate in this research study after reading this consent form, you will be asked to indicate your consent by marking the appropriate box online or by giving verbal consent to the individual conducting the telephone interview. You have the opportunity to have all your questions answered and understand what will happen to you.

In this study you will be asked to complete an online survey or participate in a telephone interview regarding your perceptions regarding the principal's role in supporting new teacher induction. The survey contains thirty-nine statements, and you will be asked to provide your opinion regarding the importance and frequency of each statement as it pertains to you and your particular school. The telephone interview contains twelve questions about the strategies elementary school principals utilize to support new teachers. You will be asked your opinions regarding the importance and frequency of those strategies. Additionally, you will be asked to complete demographic information about yourself and your school. Contact information for new teachers was provided by principals; however, all correspondence between study staff and new teachers will remain confidential. Principals will not know which new teachers respond to the survey or how they respond.

Significant new findings developed during the course of the research, which may relate to your willingness to continue participation, will be provided to you.

RISKS AND DISCOMFORTS
There are no known risks in completing this survey. You are being asked about your experiences and opinions related to programs of new teacher induction. You do not have to respond to any items you choose to skip, and you may choose not to complete the survey. If you become upset, the study staff can provide you names of counselors upon request.

BENEFITS TO YOU AND OTHERS
You may not get any direct benefit from this study, but the information we learn from participants in this study may assist us in designing stronger induction programs for new teachers in elementary schools.

COSTS
There are no costs for participating in this study other than the time you will spend in filling out questionnaires.

CONFIDENTIALITY
Potentially identifiable information about you will be gathered in this survey. Data is being collected only for research purposes. Your data will be identified by ID numbers, not names. All personal identifying information will be kept in password-protected files, and these files will be deleted upon final approval of this dissertation study. Only information contained in the final dissertation itself will be kept indefinitely. Access to all data will be limited to study personnel. A data and safety monitoring plan is established.

We will not share the answers you give us with anyone; however, information from the study may be looked at or copied for research or legal purposes by Virginia Commonwealth University.

What we find from this study may be presented at meetings or published in papers, but your name will not ever be used in these presentations or papers.

VOLUNTARY PARTICIPATION AND WITHDRAWAL
You do not have to participate in this study. If you choose to participate, you may stop at any time without any penalty. You may also choose not to answer particular questions that are asked in the study.

QUESTIONS
In the future, you may have questions about your participation in this study. If you have any questions, complaints, or concerns about the research, contact:

Michael D. Davis, PhD
Professor and Chair
Department of Teaching and Learning
School of Education
Virginia Commonwealth University
1015 West Main Street
Richmond, VA 23298
Telephone: 804-828-1305

If you have any questions about your rights as a participant in this study, you may contact:

Office for Research
Virginia Commonwealth University
800 East Leigh Street, Suite 113
P.O. Box 980568
Richmond, VA 23298
Telephone: 804-827-2157

You may also contact this number for general questions, concerns or complaints about the research. Please call this number if you cannot reach the research team or wish to talk to someone else. Additional information about participation in research studies can be found at http://www.research.vcu.edu/irb/volunteers.htm.

CONSENT
I have been given the chance to read this form. I understand the information about this study. Questions that I wanted to ask about the study have been answered. My willingness to complete the survey or participate in the telephone interview is considered consent.

APPENDIX D

Invitation to Participate in the Survey

Sent via Email to Principals

Invitation to Participate in the Survey

RE: Invitation to Participate in Dissertation Study

Dear Education Colleague:

As a fellow educator, I am writing to request your participation in a dissertation study I am conducting entitled "Perceptions Of The Virginia Elementary Principal's Role In Supporting New Teacher Induction." This study investigates the perceptions surrounding the role Virginia elementary school principals play in supporting the induction of new teachers into the education profession. The study focuses on the type of the principal's support, the frequency of that support, and the perceived importance assigned that support.

With the current focus on attracting and retaining the most highly qualified teachers, the results of this study may add to a formulation of local programs of new teacher induction, uniquely designed to address the needs of the individuals within a given district. Additionally, it may provide us, as principals, insights into what our new teachers perceive as needed additional supports.

As a study participant, you will be asked to complete an online survey. You will receive a second email within the next days providing you additional details and the Internet address for the survey. **I ask that you respond to this email, providing the names and email addresses of your new teachers, those who began teaching during this current academic year.** As a requirement of the study, we will contact them directly to invite them to participate in the study. To provide confidentiality of all responses, identifying information within the database will be limited to a site-specific unique, numerical code. Upon approval of this final dissertation work, all data connecting numerical codes to specific school sites will be destroyed.

Thank you for your assistance in completing this work. At the conclusion of the study, participants will receive a copy of the findings from this investigation upon request. If you have questions, please feel free to contact me at hallwr@vcu.edu or (804)798-0998.

Sincerely,
Rich Hall
Elementary School Principal
Virginia Commonwealth University Doctoral Candidate

APPENDIX E

Justification for Questions on the Survey

Taken from the work of Gurule-Gonzales (1995)

Justification for Questions on Survey

Question	Back-up Citation	Page #
#1	Comely, 1991; Sclan, 1993	p. 7 & 9
#2, #3, #4	Tocha & Tracy 1992; Bradley, 1991	p. 9
#5	Sclan, 1993	p. 9
#6	Huling-Austin, 1992; Bercik, 1994	p. 12 & 14
#7	Hoffman et all., 1986; Feiman-Nemser, 1983; Keith & Girling, 1991	p. 10, 11, & 12
#8, #9	Hunt, 1992	p. 8
#10, #11, #12	Grant & Zeichner, 1981; Conley, 1991	p. 4 & 7
#13	Schlechty, 1984	p. 3
#14	Grant & Zeichner, 1981; Conley, 1991	p. 4 & 7
#15	Ward, 1988; Bradley, Kalllick & Regan, 1991	p. 4, 5, & 6
#16	Bradley, Kallick & Regan, 1991	p. 6
#17	Hunt, 1992	p. 8
#21	Ward, 1988; Gray & Gray, 1985	p. 4 & 5
#22	Odell, 1990; Fox & Singletary, 1986	p. 13
#23	Joyce, 1988; Sprinthall & Thies-Sprinthall, 1983	p. 10
#24	Livingston & Borko, 1989	p. 11
#25	Schlechty, 1984; Berman & Mclaughlin, 1975	p. 3 & 11
#26	Bey & Holmes, 1990; Brooks, 1987	p. 14
#27	Bradley, Kallick & Regan, 1991; Fox & Singletary, 1986	p. 6 & 13
#29	Odell, 1990	p. 14
#30	Joyce, 1988	p. 13
#31	Sclan, 1993; Bercik, 1994	p. 14
#32	Joyce, 1988	p. 13
#36	Huling-Austin, 1992; Odell, 1990	p. 11, 12, & 14
#37	Joyce, 1988	p. 13
#38	Joyce, 1988	p. 13

Note. Taken from Gurule-Gonzales (1995). Page numbers above indicate the page of Gurule-Gonzales' dissertation, on which he describes the work of the indicated author.

APPENDIX F

Telephone Interview Protocol

Telephone Interview Protocol

Project: Perceptions of the Virginia Elementary School Principal's Role in Supporting New Teacher Induction

Date of Interview: _____ Time of Interview: _____

Interviewer: Rich Hall, Student Investigator

Interviewee: _____ Position: _____

Description of Project: I am conducting this telephone interview to assist in confirming findings from an earlier online survey. The study investigates the perceptions surrounding the role Virginia elementary school principals play in supporting the induction of new teachers into the education profession. I hope to share a greater understanding of the perceptions that novice teachers hold regarding the importance and frequency assigned a variety of roles of the elementary principal, as well as the perceptions these same principals hold about themselves.

The elementary principal's support of new teachers can be divided into four subcategories:

1) Administrative Support
2) Professional Development
3) Mentoring
4) Collegiality

This telephone interview is being conducted to confirm findings of a census survey conducted earlier with elementary schools throughout the commonwealth of Virginia.

Consent Documentation

_____ The individual was emailed a copy of the Research Subject Information Form prior to this interview.

_____ The individual gives verbal consent to participate in this interview.

Questions:

1) What are the three most helpful administrative support strategies that you use (your principal uses)?

   Prompts: Administrative support strategies include communicating a common vision, encouraging participation in staff development, emphasizing a philosophy of teaching and learning, nurturing professional growth, visiting new teachers' classrooms, providing adequate resources, and encouraging new teachers to read journals.

2) How helpful would you rate each of these activities? (extremely helpful, mostly helpful, somewhat helpful)

   Activity 1_____
   _____extremely _____mostly _____somewhat

   Activity 2_____
   _____extremely _____mostly _____somewhat

   Activity 3_____
   _____extremely _____mostly _____somewhat

3) How frequently do you (does your principal) engage in these activities (frequently, occasionally, seldom, not at all)?

   Activity 1_____
   _____frequently _____occasionally _____seldom _____not at all

   Activity 2_____
   _____frequently _____occasionally _____seldom _____not at all

   Activity 3_____
   _____frequently _____occasionally _____seldom _____not at all

4) What are the three most helpful professional development strategies that you use (your principal uses)?

Prompts: Professional development strategies include providing release time to attend professional training, providing funds for professional development activities, encouraging course work and commercial workshops, encouraging support from outside agencies, providing specific training for new teachers, demonstrating that staff development is essential for new teachers growth, and giving compliments on teaching performance.

5) How helpful would you rate each of these activities? (extremely helpful, mostly helpful, somewhat helpful)

Activity 1_____
_____extremely _____mostly _____somewhat

Activity 2_____
_____extremely _____mostly _____somewhat

Activity 3_____
_____extremely _____mostly _____somewhat

6) How frequently do you (does your principal) engage in these activities (frequently, occasionally, seldom, not at all)?

Activity 1_____
_____frequently _____occasionally _____seldom _____not at all

Activity 2_____
_____frequently _____occasionally _____seldom _____not at all

Activity 3_____
_____frequently _____occasionally _____seldom _____not at all

7) What are the three most helpful mentoring strategies that you use (your principal uses)?

Prompts: Mentoring strategies include organizing the pairing of new teacher and mentor, matching new teacher with a mentor in the same content area, meeting with mentors and new teachers jointly, encouraging mentors to establish networks for new teachers, encouraging mentors to model lessons, providing mentors with training and instructional strategies to use with new teachers, and encouraging mentors to observe and provide meaningful feedback.

8) How helpful would you rate each of these activities? (extremely helpful, mostly helpful, somewhat helpful)

Activity 1_____
_____extremely _____mostly _____somewhat

Activity 2_____
_____extremely _____mostly _____somewhat

Activity 3_____
_____extremely _____mostly _____somewhat

9) How frequently do you (does your principal) engage in these activities (frequently, occasionally, seldom, not at all)?

Activity 1_____
_____frequently _____occasionally _____seldom _____not at all

Activity 2_____
_____frequently _____occasionally _____seldom _____not at all

Activity 3_____
_____frequently _____occasionally _____seldom _____not at all

10) What are the three most helpful collegiality strategies that you use (your principal uses)?

Prompts: Collegiality strategies include making new teachers feel as though they are part of the school team, showing genuine actions of sharing and caring to new teachers, including new teachers in school related activities, and promoting collegiality by being involved in the daily life of new teachers.

11) How helfpul would you rate each of these activities? (extremely helpful, mostly helpful, somewhat helpful)

Activity 1_____
_____extremely _____mostly _____somewhat

Activity 2_____
_____extremely _____mostly _____somewhat

Activity 3_____
_____extremely _____mostly _____somewhat

12) How frequently do you (does your principal) engage in these activities (frequently, occasionally, seldom, not at all)?

Activity 1_____
_____frequently _____occasionally _____seldom _____not at all

Activity 2_____
_____frequently _____occasionally _____seldom _____not at all

Activity 3_____
_____frequently _____occasionally _____seldom _____not at all

Demographic Questions:

13) Gender: _____Female _____Male

14) Age: _____20-29 _____30-39 _____40-49
_____50-59 _____60-69 _____Other

15) Type of induction program adopted by your school/district – Choose the description that most closely resembles your school or district's program
_____ ETS Pathwise
(In the ETS Pathwise model, full-time teachers serve as mentors to new teachers and coordinate training, much of it delivered via computerized software.)
_____ Great Beginnings
(The Great Beginnings model is based primarily on a six-day summer institute and monthly meetings focused on predetermined topics and facilitated by mentors, who are also full-time teachers.)
_____ Santa Cruz/New Teacher Center Model
(The Santa Cruz model utilizes full-time mentors to implement protocols of teacher self-assessment and individual plan development.)
_____ other (please specify)_____

16) How much training (professional support/professional development) did you receive in this model?
_____ Several days of training
_____ One day of training
_____ 1/2 day of training
_____ (Principal interview only) Information during principals' meeting
_____ Written information provided to me
_____ No training
_____ Other (please specify) _____

(Remaining questions for principals only)

17) How frequently have you used this model?
_____ Have not used it before this year
_____ Used it frequently since training
_____ Used it often since training
_____ Used it rarely since training

18) Years of experience as a principal _____ At this site? _____

19) Setting: _____Urban _____Suburban _____Rural

20) Percentage of students qualifying for Free and/or Reduced Lunch: _____

21) Number of teaching staff _____

22) Number of new teachers _____

Thank you for your participation in this study. All responses will remain confidential and will be used for the purposes of this research study only.

APPENDIX G

Perceptions of Importance and Frequency of Support by Survey Item

Perceptions of Importance and Frequency of Support by Survey Item

Source of Support	Principal Importance		New Teacher Importance		Principal Frequency		New Teacher Frequency	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
communicates a common vision for the school.	4.95	.276	4.69	.479	4.34	.533	4.47	.640
encourages participation in staff development.	4.87	.409	4.69	.479	4.62	.543	4.54	.519
promotes staff development.	4.81	.430	4.69	.602	4.63	.540	4.43	.756
emphasizes a philosophy of teaching and learning.	4.84	.400	4.50	.816	4.55	.578	4.21	.975
nurtures new teachers and encourages growth.	4.79	.439	4.75	.577	4.40	.571	4.21	.802
visits new teachers' classrooms.	4.94	.248	4.37	.719	4.36	.653	4.00	.679
provides useful feedback on teaching performances.	4.82	.421	4.75	.447	4.23	.657	4.21	.802
provides support on policies (i.e. discipline).	4.79	.439	4.44	.814	4.31	.620	3.93	.917
provides information on legal school issues.	4.42	.804	4.12	.885	3.79	.827	3.60	.986
provides resources and materials for new teachers.	4.82	.390	4.44	.629	4.58	.524	3.93	.884
encourages new teachers to read journals/research.	3.92	.920	3.56	.964	3.37	.835	2.93	.961
provides journals and educational articles.	3.75	.981	3.37	1.088	3.29	.950	3.07	1.100
provides release time to attend training.	4.63	.564	4.31	.946	4.38	.635	3.67	1.047
provides funds for professional development.	4.32	.969	3.93	1.580	3.87	1.095	3.50	1.605
encourages new teachers to pursue improvement.	4.31	.771	4.31	.793	3.96	.936	3.73	.884
encourages support for new teachers from outside.	3.92	.876	3.69	1.101	3.47	.844	3.47	1.125
provides specific staff development training.	4.47	.821	4.44	.892	3.91	.903	3.57	1.284
demonstrates that staff development is essential.	4.68	.498	4.47	.806	4.31	.657	4.17	.799

Appendix G. (continued)

Source of Support	Principal Importance		New Teacher Importance		Principal Frequency		New Teacher Frequency	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
gives compliments on teaching performance.	4.87	.338	4.75	.447	4.48	.644	4.27	.884
emphasizes that staff dev. contributes to success.	4.63	.585	4.50	.816	4.20	.697	4.20	.941
promotes mentoring for new teachers.	4.87	.338	4.75	.775	4.72	.534	4.20	1.320
organizes the pairing of new teachers with mentor.	4.84	.434	4.80	.561	4.79	.527	4.36	.745
meets with mentors and new teachers jointly.	4.32	.785	3.75	1.342	3.55	1.087	2.73	1.486
encourages mentors to establish networks.	4.36	.778	4.00	1.414	3.70	1.063	3.21	1.578
encourages mentors to demonstrate teaching.	4.35	.721	4.19	1.167	3.71	.941	3.13	1.642
provides release time for new teachers to observe.	4.49	.641	3.94	1.340	3.91	.841	3.07	1.624
provides training for mentors.	4.03	1.070	4.12	.806	3.39	1.229	3.20	1.265
encourages mentors to locate materials.	4.18	.823	4.06	1.340	3.68	1.042	3.20	1.474
encourages mentors to stress management.	4.32	.841	4.31	1.195	3.84	1.053	3.53	1.302
provides mentors with instructional strategies.	3.87	1.044	4.20	1.207	3.34	1.063	3.21	1.424
encourages mentors to show sharing and caring.	4.60	.634	4.27	.961	4.23	.874	3.80	1.146
encourages mentors to help new teachers grow.	4.53	.668	4.31	.873	4.15	.806	3.73	1.280
encourages mentors to recognize performance.	4.18	.844	4.19	.981	3.69	2.67	3.33	1.397
encourages mentors to give feedback.	4.43	.880	4.19	.981	3.81	1.135	3.27	1.580
believes that mentoring contributes to success.	4.77	.484	4.37	.719	4.51	.726	3.80	1.373
includes new teachers in school related activities.	4.92	.270	4.69	.704	4.85	.425	4.67	.724

Appendix G. (continued)

Source of Support	Principal Importance		New Teacher Importance		Principal Frequency		New Teacher Frequency	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
makes new teachers feel part of the school team.	4.97	.160	4.81	.544	4.92	.321	4.60	.910
shows genuine actions of sharing and caring.	4.95	.223	4.75	.577	4.81	.456	4.27	1.163
promotes collegiality by being involved.	4.58	.656	4.62	.719	4.31	.822	4.07	1.223

APPENDIX H

Survey Scale Summaries

Administrative Support Scale Summary

Source of Support	Principal Importancee	Principal Frequency	New Teacher Importance	New Teacher Frequency
The principal communicates a common vision for the school.	.451	.439	.305	.728
The principal encourages participation in staff development and inservice programs.	.502	.461	.615	.616
The principal promotes staff development.	.551	.545	.511	.780
The principal emphasizes a philosophy of teaching and learning.	.484	.390	.582	.591
The principal nurtures new teachers and encourages professional growth.	.461	.578	.601	.797
The principal visits new teachers' classrooms.	.469	.494	.775	.699
New teachers receive useful feedback on teaching performances from the principal.	.637	.725	.437	.633
New teachers receive support on policies (i.e. discipline) from the principal.	.426	.547	.711	.647
The principal provides current information on legal school issues (i.e. safety and child abuse).	.616	.490	.738	.507
The principal provides adequate resources and materials (i.e. books, supplies) for new teachers.	.450	.427	.592	.526
The principal encourages new teachers to read professional journals and research.	.551	.633	.667	.745
The principal provides professional journals and current educational articles (i.e. Kappan, Leadership).	.464	.477	.585	.577
Scale Reliability (Cronbach's alpha)	.81	.84	.88	.91

Professional Development Scale Summary

Source of Support	Principal Importancee	Principal Frequency	New Teacher Importance	New Teacher Frequency
New teachers receive release time from the principal to attend professional training.	.538	.381	.626	.773
The principal provides funds for professional development (i.e. conferences and workshops).	.532	.554	.792	.492
The principal encourages new teachers to pursue professional improvement through college course work and commercial workshops.	.580	.481	.881	.826
The principal encourages support for new teachers from outside agencies (i.e. universities, professional development centers).	.603	.398	.659	.513
The principal provides specific staff development training programs for new teachers.	.473	.427	.432	.471
The principal believes and demonstrates that staff development is essential for new teachers professional growth.	.694	.584	.635	.698
The principal gives compliments on teaching performance to new teachers.	.486	.356	.621	.538
The principal believes and emphasizes that staff development contributes greatly to the success of new teachers.	.684	.603	.637	.694
Scale Reliability (Cronbach's alpha)	.82	.76	.87	.85

Mentoring Support Scale Summary

Source of Support	Principal Importancee	Principal Frequency	New Teacher Importance	New Teacher Frequency
The principal promotes mentoring for new teachers.	.354	.444	.803	.704
The principal organizes the pairing of new teachers with an appropriate mentor (i.e. same grade level, instructional background).	.446	.285	.577	.500
The principal meets with mentors and new teachers jointly, to discuss issues of concern (i.e. curriculum, progress and problems).	.581	.548	.949	.872
The principal encourages mentors to establish networks for new teachers.	.585	.672	.959	.878
The principal encourages mentors to demonstrate teaching lessons to new teachers.	.608	.621	.908	.908
The principal provides release time for new teachers to observe demonstration lessons.	.514	.403	.824	.772
The principal provides training for mentors (i.e. workshops and seminars).	.566	.485	.702	.766
The principal encourages mentors to locate materials for new teachers (i.e. district office and professional development centers).	.648	.701	.963	.931
The principal encourages mentors to stress time/student management to new teachers.	.627	.717	.922	.733
The principal provides mentors with instructional strategies to use with new teachers.	.584	.656	.931	.931
The principal encourages mentors to show genuine actions of sharing and caring to new teachers.	.637	.619	.811	.922
The principal encourages mentors to help new teachers grow professionally.	.495	.699	.945	.908
The principal encourages mentors to recognize new teachers teaching performance.	.591	.738	.843	.843
The principal encourages mentors to give feedback to new teachers on teaching performance.	.507	.573	.830	.847
The principal believes that mentoring contributes greatly to the success of new teachers.	.499	.475	.730	.900
Scale Reliability (Cronbach's alpha)	.87	.90	.95	.86

Collegiality Scale Summary

Source of Support	Principal Importancee	Principal Frequency	New Teacher Importance	New Teacher Frequency
The principal includes new teachers in school related activities.	.402	.602	.932	.406
The principal tries to make new teachers feel as though they are part of the school team.	.542	.659	.767	.793
The principal shows genuine actions of sharing and caring to new teachers.	.547	.755	.983	.906
The principal promotes collegiality by being involved in the daily life of new teachers.	.372	.484	.884	.795
Scale Reliability (Cronbach's alpha)	.55	.75	.95	.86

APPENDIX I

Results of Telephone Interviews Coded by Strategy

Results of Telephone Interviews Coded by Strategy

Role Scale	Respondent Strategy	Assigned Code	Helpfulness	Frequency
ETS P Admin.	Assign mentor	Assign mentor	extremely	at beginning
	Leadership maps out year	Staff Dev/ Meeting	extremely	occasionally
	Prof. Dev.	Staff Dev/ Meeting	extremely	occasionally
ETS P Prof. Dev.	Compliment	Observation & Feedback	extremely	frequently
	Specific training	Provide/support training	extremely	not at all
	Financial support		mostly	occasionally
ETS P Mentor	Pair w/ mentor	Assign mentor	mostly	frequently
	Model lessons	Provide/support training	mostly	occasionally
	Training for mentors	Provide/support training	extremely	occasionally
ETS P Collegiality	Part of community	Sharing/Caring support	extremely	frequently
	Small school		extremely	
	Central support/teaming		extremely	
ETS T Admin.	Monthly staff meeting	Staff Dev/ Meeting	extremely	frequently
	Observation	Observation & Feedback	extremely	frequently
	Nurture professional growth	Staff Dev/ Meeting	extremely	frequently
ETS T Prof. Dev.	Coursework	Provide/support training	extremely	frequently
	Staff meetings	Staff Dev/ Meeting	extremely	frequently
	Approachable		extremely	frequently
ETS T Mentor	Pair w/ veteran	Assign mentor	extremely	frequently
	Materials/resources		mostly	frequently
	Reading materials		extremely	frequently
ETS T Collegiality	Welcoming	Sharing/Caring support	extremely	frequently
	Include in school activities	Sharing/Caring support	extremely	frequently
	Observation	Observation & Feedback	extremely	frequently

Role Scale	Respondent Strategy	Assigned Code	Helpfulness	Frequency
GB P Admin.	Face time	Staff Dev/ Meeting	extremely	frequently
	Vision		extremely	occasionally
	Visit classroom	Observation & Feedback	extremely	occasionally
GB P Prof. Dev.	Provide release time	Staff Dev/ Meeting	extremely	seldom
	Modeling	Provide/support training	extremely	frequently
	Encourage weekly PLC	Staff Dev/ Meeting	extremely	frequently
GB P Mentor	Match mentor	Assign mentor	extremely	frequently
	Content area match	Assign mentor	extremely	frequently
	Meeting w/ new teachers	Staff Dev/ Meeting	extremely	occasionally
GB P Collegiality	Orient to space		extremely	none after initial
	Immersion into PLC	Staff Dev/ Meeting	extremely	frequently
	Social acceptance	Sharing/Caring support	extremely	frequently
GB T Admin.	Vision		mostly	occasionally
	Prof. Dev.	Staff Dev/ Meeting	extremely	frequently
	Philosophy of teaching and learning	Staff Dev/ Meeting	extremely	occasionally
GB T Prof. Dev.	Encourage training	Provide/support training	extremely	occasionally
	Compliments	Observation & Feedback	extremely	seldom
	Demonstrate that prof. dev. is important	Staff Dev/ Meeting	extremely	frequently
GB T Mentor	Match mentor in content	Assign mentor	extremely	not at all (P does not do it)
	Network		mostly	occasionally
	Training for mentor	Provide/support training	mostly	not at all
GB T Collegiality	Make new teacher feel like part of school	Sharing/Caring support	mostly	frequently
	Sharing/caring	Sharing/Caring support	extremely	occasionally
	Giving feedback	Observation & Feedback	extremely	seldom

Role Scale	Respondent Strategy	Assigned Code	Helpfulness	Frequency
SC P Admin.	Common vision		extremely	frequently
	Share materials		extremely	frequently
	Professional growth opportunities	Staff Dev/ Meeting	mostly	occasionally
SC P Prof. Dev.	Funding		extremely	occasionally
	Provide release time	Staff Dev/ Meeting	mostly	occasionally
	Provide useful prof. dev.	Staff Dev/ Meeting	extremely	occasionally
SC P Mentor	Pair new teacher	Assign mentor	extremely	frequently
	Model lessons	Provide/support training	extremely	occasionally
	Encourage mentor to observe	Observation/ Feedback	extremely	frequently
SC P Collegiality	Include in school events	Sharing/Caring support	extremely	frequently
	Give responsibility	Sharing/Caring support	extremely	frequently
	Being involved in daily lives	Sharing/Caring support	mostly	frequently
SC T Admin.	Visit classroom	Observation & Feedback	mostly	seldom
	Encourage lifelong learning	Staff Dev/ Meeting	somewhat	occasionally
	Close contact with home		extremely	frequently
SC T Prof. Dev.	Provides release time	Staff Dev/ Meeting	extremely	frequently
	Compliments	Observation & Feedback	extremely	frequently
	Outside support from agencies	Provide/support training	extremely	frequently
SC T Mentor	Pair with mentor	Assign mentor	extremely	occasionally
	Set meeting schedule	Staff Dev/ Meeting	extremely	occasionally
	Attends team meetings	Staff Dev/ Meeting	somewhat	occasionally
SC T Collegiality	Family team	Sharing/Caring support	extremely	frequently
	Include in school activities	Sharing/Caring support	extremely	frequently
	Thank for efforts	Sharing/Caring support	extremely	occasionally

Role Scale	Respondent Strategy	Assigned Code	Helpfulness	Frequency
LD P Admin.	Seasoned mentor	Assign mentor	extremely	frequently
	Visit classroom	Observation & Feedback	extremely	frequently
	Resources		mostly	frequently
LD P Prof. Dev.	Specific training	Provide/support training	extremely	occasionally
	Release time	Staff Dev/ Meeting	extremely	frequently
	Funding/support to attend conferences	Staff Dev/ Meeting	extremely	occasionally
LD P Mentor	Create time within day	Staff Dev/ Meeting	extremely	frequently
	Mentor to observe	Observation & Feedback	extremely	frequently
	Design/organize schedule and communicate importance	Staff Dev/ Meeting	extremely	frequently
LD P Collegiality	Recognize new teacher	Observation & Feedback	extremely	frequently
	Create connection early in summer	Sharing/Caring support	extremely	frequently
	Being involved in professional life	Sharing/Caring support	extremely	frequently
LD T Admin.	Principal attends grade level meeting	Staff Dev/ Meeting	mostly	frequently
	Visit classroom	Observation & Feedback	extremely	occasionally
	Attend montly mentor/group meetings	Staff Dev/ Meeting	extremely	frequently
LD T Prof. Dev.	Encourage to attend SD	Staff Dev/ Meeting	mostly	occasionally
	Encourage	Sharing/Caring support	extremely	frequently
	Attend grade level meetings	Staff Dev/ Meeting	extremely	frequently
LD T Mentor	Match mentor	Assign mentor	extremely	frequently
	Provide feedback	Observation & Feedback	extremely	occasionally
	Share strategies	Provide/support training	extremely	occasionally
LD T Collegiality	Sharing/caring	Sharing/Caring support	extremely	frequently
	Encourages team	Sharing/Caring support	mostly	frequently
	Visit classroom	Observation & Feedback	mostly	frequently

VITA

William Richard Hall, Jr. was born January 4, 1968 in Kinston, North Carolina and is a citizen of the United States of America. He graduated high school from the North Carolina School of Science and Mathematics in Durham, North Carolina in 1985. After completing a Bachelor of Arts in German and Mathematics from Wake Forest University in Winston-Salem, North Carolina in 1990, he moved to Virginia to begin a career in education. He completed a Master of Education in Curriculum and Instruction in 2001 and a Post-master's Certificate in Administration and Supervision in 2003 from Virginia Commonwealth University. He has worked as a classroom teacher, instructional technology resource teacher, educational specialist, and director of staff development. He served as the President of the Virginia Staff Development Council from 2007 to 2009 and continues to serve on its board of directors. He served as an Adjust Instructor at the University of Richmond during several semesters from 2002 until 2008 and currently serves as principal of R. C. Longan Elementary School in Henrico County, Virginia.